COLORADO
Colorado Water Conservation Board
Department of Natural Resources

1313 Sherman Street
Denver, CO 80203

P (303) 866-3441
F (303) 866-4474

John Hickenlooper, Governor

Robert Randall, DNR Executive Director

James Eklund, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Linda Bassi, Section Chief
Kaylea White, Senior Water Resource Specialist
Stream and Lake Protection Section

DATE: January 23-24, 2017 Board Meeting

AGENDA ITEM: Agenda # 10. Request to Inundate; Case No. 15CW3183, Division 1; Application of Rainbow Falls Mountain Trout Inc.

Introduction

This agenda item addresses a proposed pretrial resolution of a portion of a case that is a request to inundate under ISF Rule 7. *Inundation of ISF Rights*. This proposal is to inundate a small portion of the 11-mile long, 2 cfs instream flow water right on Trout Creek, decreed in Case No. W-8731 in 1977, ("ISF") by two small lakes on the property of Rainbow Falls Mountain Trout Inc, ("Applicant"). The ISF reach extends from the outlet of Manitou Park Lake, approximately five miles upstream of the subject lakes on the Rainbow Falls property, through the property, and down to the confluence of Trout Creek and Horse Creek, approximately five miles downstream of the subject lakes. The property and fish culture facilities were originally developed in the late 1800's as part of Manitou Park south of Woodland Park, Colorado. See map attached as **Appendix A**. Although other lakes are included in the water court application, as shown on the map, only two of the six lakes on Trout Creek are at issue for inundation. The others were constructed prior to July 10, 1990 and are therefore not to be considered under ISF Rule 7.

This memo addresses only the inundation issue for the two lakes built in 2004 as described in Applicant's water court Case No. 15CW3183. Applicant's *Request to Inundate*, dated December 12, 2016 is attached as **Appendix B**. Staff and the AGO will continue to negotiation proper terms and conditions to protect other aspects of the potentially affected instream flows. Currently, the water court case remains before the water referee. There is no trial set in this matter.

Staff Recommendation

Staff recommends that the Board:

1. Determine that the small inundations do not significantly interfere with the instream flow water right on Trout Creek, and therefore the natural environment of Trout Creek can continue to be preserved to a reasonable degree;
2. Approve the inundation request; and

3. Direct staff to negotiate proper terms and conditions for the final decree regarding maintenance of the sediment control structures that have already been installed.

Case Background

Applicant's property is on 100 acres adjacent to and on both sides of Trout Creek. Applicant's primary use of the Rainbow Falls Lakes is fish rearing for a private fishing club along Trout Creek, a tributary of Horse Creek, tributary to the South Platte River, upstream of Deckers, CO. Applicant maintains two raceways where young trout are matured before stocking the nine lakes. There are currently one private residence and an RV camper also using water. Water is supplied to the raceways and the lakes from a perennial spring known as Big Spring and from Trout Creek. Big Spring flows through the race ways and three of the lakes before joining Trout Creek. Domestic water for the private residence and RV is piped from the Big Spring Pipeline.

Although originally developed in the late 1800's as part of Manitou Park, no water rights have been awarded for the existing structures. Applicant is currently claiming absolute water storage rights for on channel structures including Ute Lake, Palmer Lake, Trout Creek Lake, Watson Lake, Bear Lake and Cougar Lake on the mainstem of Trout Creek, and Elk Lake, Eagle Lake, and Spring Lake on the Big Spring tributary channel ("Rainbow Falls Lakes") for irrigation, recreation, piscatorial, fish culture, domestic, augmentation, and commercial purposes. Applicant also seeks direct flow water rights for the Big Spring Pipeline for hatchery and raceways, residences, irrigation, domestic, and commercial uses. The Applicant seeks approval of a plan for augmentation to replace out-of-priority depletions from the Rainbow Falls Lakes and to replace evaporation. Applicant proposes to supply water to two additional residences, a 25-room lodge and irrigation of up to five acres. Applicant holds several water rights that can be used for some, but not all, of its current and proposed uses. Applicant has operated under a substitute water supply plan approved by the State Engineer's Office since 2011.

In March 2016, the Board ratified the Statement of Opposition to this application because it could injure the Board's ISF water rights set forth below. CWCB became a party in this case with the intent of negotiating terms and conditions to fully protect the Board's ISF water rights. The Board holds the following ISF water rights that could be injured by this application.

CWCB Case No.	Stream	Upper Terminus	Lower Terminus	Rate (cfs)	Timing	Approp. Date
77W8731 (Div 1)	Trout Creek	Manitou Park Reservoir	confl. Horse Creek	2	1/1 - 12/31	11/15/1977
80CW210 (Div. 1)	Horse Creek	confl. West and Trout Creeks	confl. South Platte River	5	1/1- 12/31	5/7/1980

Extent of potential impact of the inundation

At the Board meeting, Applicant's representatives will present its request to inundate.

The two post-ISF Rule 7 lakes that are considered under ISF Rule 7 that will inundate the ISF are Bear Lake and Cougar Lake. Bear Lake covers 1.35 acres, contains 3.92 AF of water and inundates approximately 600 feet of Trout Creek, while Cougar Lake covers 1.21 acres, contains 5.17 AF of water and inundates approximately 700 feet of Trout Creek. Both have dam heights under 10 feet. Under ISF Rule 7a., "[s]mall inundations are those in which the impoundment is 100 acre-feet or less, or the surface acreage of the impoundment is 20 acres or less, or the dam height of the structure is 10 feet or less." ISF Rule 7a.(1) states that "[a]ll structures proposed by any applicant on a stream reach shall be accumulated for the purpose of determining whether the inundations proposed by the applicant are small inundations," Therefore, even when combined, these two inundations are considered a "small inundation."

While the inundations here are small, the effects of inundation can be negative. CPW and CWCB consider the following types of effects when evaluating inundations to an instream flow. The greater surface area of an inundation versus a stream can result in more exposure to the sun and result in higher temperatures both in the impoundment and downstream. The loss of turbulent flow from changing the habitat from a free-flowing instream flow to an impoundment may result in reduced dissolved oxygen concentrations that can be reduced even further if the impoundment stratifies or is covered by ice or snow for periods of time. Some species are better suited for the slower velocity of lakes and ponds rather than the natural flow dynamics. Dams structures themselves create barrier for fish migration within the stream channel. Finally, impoundments tend to trap sediments, nutrients, metals and inorganic matter, critical habitat can be inundated by water and trapped by sediment and downstream erosion can result from the stream's sediment load trapped in the impoundment. See **Appendix C** for a summary of the types of effects an inundation can have on a stream. This summary was created by CPW and presented to this Board in 2007 as part of the reasoning for CWCB's ISF Rule 7.

Under ISF Rule 7g., the Board must consider any mitigation or compensation offered to offset adverse impacts on the ISF right. There is no expert report on the issues, but according to the Applicant, the inundations result in a net gain of healthy habitat for fish and other aquatic organisms. The inundations result in improved water temperatures in the lakes. The Applicant reports that the water flowing in the unimproved section of Trout Creek upstream of Bear Lake is typically only 4 inches to 12 inches deep, and will run 76-78 degrees in August and September. Both Bear and Cougar Lakes, on the other hand, provide safe haven for trout with lake temperatures up to 8 degrees cooler just 24 inches below the surface. The inundation also results in improved water temperatures downstream of the lakes. The outlet from Bear Lake is a bottom discharge tube that discharges cooler water from the bottom of the lake to Trout Creek, which also helps improve fish habitat in Trout Creek downstream of Bear Lake. The cooler water in the lakes and downstream of the lakes improves the dissolved oxygen content of the water for the benefit of fish. Additionally, both lakes serve as "settling basins" that reduce sediment transport in Trout Creek downstream of the lakes. Further, both lakes provide enhanced habitat and concentration of midges, caddis flies, and tricos, as well as scuds and crawfish to benefit both the environment and the fish. Finally, the Applicant performed erosion control measures on the property to reduce sediment flow into Trout Creek by constructing terracing around the west banks of Spring Lake, Eagle Lake, and Elk Lake to redirect runoff around the lake shores, and repaired two washed-out areas on the east bank of the access road to the northern parcel in order to reduce sedimentation from entering the Trout Creek system. The Applicant completed a high-flow run-around at the outlet of Bear Lake to protect a vulnerable section of Trout Creek.

Finally, although not for the purpose of directly mitigating specific impacts to the Trout Creek ISF water right, the Applicant asks the Board to consider that there are approximately 5,000 trout fingerlings reared each year that are purchased from State-licensed hatcheries that are released into the Rainbow Falls Lakes and Trout Creek as part of monthly stocking program from March through September. All fishing on the property is catch-and-release and the Applicant provides supplemental feeding during times of low flows and during the winter. Although the mitigation described above occurred well before the Applicant sought to obtain water rights for the Rainbow Lakes and the ISF has been affected by the inundation since approximately 2004, the Applicant requests in his *Request to Inundate* that no additional compensation or mitigation be required because all of these actions result in improved water quality and increased fish population. However, the Applicant has subsequently agreed to perform additional environmental improvements, such as sediment control and retro-fitting dams to release cool water from the bottom of the lake rather than hot water over the top of the spillway.

Pursuant to ISF Rule 7e., Applicant is required to provide information on the following factors:

> [T]he location of the inundation, the size of the inundation, impact of the inundation on the natural environment, any unique or rare characteristics of the ISF water right to be inundated, any regulatory requirements or conditions imposed upon the applicant by federal, state and/or local governments, all terms and conditions included in applicant's water court decree, and any compensation or mitigation offered by the Person proposing the inundation.

The required information was provided in Applicant's proposal to inundate, attached as **Appendix B**, and as discussed in this memo. In addition to the information provided above, there are no other specific unique or rare characteristics of the ISF water right to be inundated, the Applicant has agreed to abide by any regulatory requirements or conditions imposed upon the applicant by federal, state and/or local governments, and has verbally agreed to maintain the existing sediment control structures.

Discussion

Under Rule 7g., when considering a request to inundate an ISF, the Board may: approve, approve with conditions, defer, or deny the request to inundate. Rule 7g. requires the Board to consider all relevant factors, including:

> (1) the extent of inundation proposed; (2) the impact of the proposed inundation on the natural environment existing prior to the inundation; (3) the degree to which the beds and banks adjacent to the ISF right subject to the inundation are publicly or privately owned; (4) the economic benefits arising from the inundation; (5) the benefits to recreation and downstream ISF segments arising from the inundation; (6) the degree to which the proposed inundation will allow development of Colorado's allotment of interstate waters as determined by compact or adjudication; and, (7) any mitigation or compensation offered to offset adverse impacts on the ISF right.

The requested inundations from Bear and Cougar Lakes cover 1.35 and 1.21 acres, contain 3.92 AF and 5.17 AF of water, and inundate approximately 600 and 700 feet of Trout Creek, respectively, and both are under 10 feet in height. Any negative impacts, in effect have been mitigated already by the sediment control structures and other work done for the purpose of protecting and enhancing the fishery. The Applicant states that there are economic benefits because there are currently 130 memberships, representing over 300 active members that utilize the facility. There is likely an insignificant positive effect on Colorado's compact entitlement developments because water is being put to consumptive beneficial use. Finally, the existing and proposed improvements to the stream system outweigh any negative effects from the small inundation.

Colorado Parks and Wildlife Evaluation of Proposal

Colorado Parks and Wildlife ("CPW") staff members have visited the site visit as part of the Applicant's stocking with CPW-hatchery fish, and annual Commercial Lake License from CPW. Based on discussions, site visits and review of documents, CPW has concluded that, on balance, the improvements that are in place enhance the natural environment and offset any negative effect resulting from the inundation. See CPW's recommendation letter, attached as **Appendix D**.

Conclusion

Based upon: (1) a site visit and on-site discussion with Applicant's representatives; (2) review of the request for inundation report prepared by Richard Johnson (owner and manager of Rainbow Falls); (3) review of Applicant's engineering report prepared by Gregory Sullivan of Spronk Water Engineers; (4) and upon staff's and CPW's subsequent discussions with the Applicant's representatives, it appears that the Applicant's request to inundate Trout Creek supports the conclusion that the inundation does not significantly interfere with the natural environment of Trout Creek. Trout Creek can continue to be preserved to a reasonable degree, despite these small inundations.

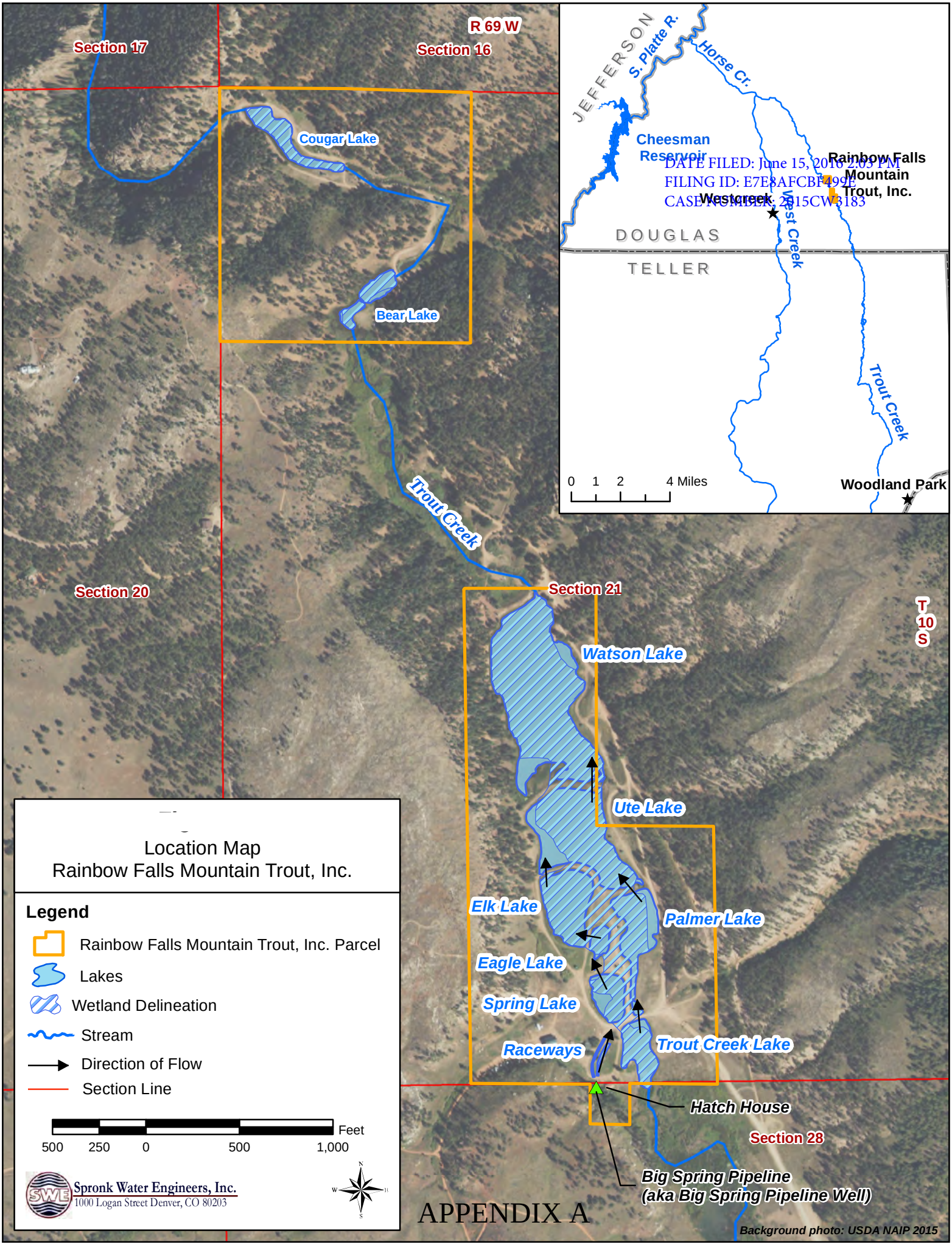
Staff Recommendation

Staff recommends that the Board:

1. Determine that the small inundations do not significantly interfere with the instream flow water right on Trout Creek, and therefore the natural environment of Trout Creek can continue to be preserved to a reasonable degree;
2. Approve the inundation request; and
3. Direct staff to negotiate proper terms and conditions for the final decree regarding maintenance of the sediment control structures that have already been installed.

Attachments

Appendix A: Map
Appendix B: Applicant's Request to Inundate
Appendix C: 2007 Board Memo – CPW summary of inundation impact on a stream
Appendix D: CPW Recommendation Letter


R 69 W
Section 17
Section 16
Cougar Lake
Bear Lake
Trout Creek
Section 20
Section 21
Watson Lake
Ute Lake
Elk Lake
Palmer Lake
Eagle Lake
Spring Lake
Raceways
Trout Creek Lake
Hatch House
Section 28
Big Spring Pipeline
(aka Big Spring Pipeline Well)
T 10 S
JEFFERSON
S. Platte R.
Horse Cr.
Cheesman Reservoir
Rainbow Falls Mountain Trout, Inc.
Westcreek
West Creek
DOUGLAS
TELLER
Trout Creek
0 1 2 4 Miles
Woodland Park
DATE FILED: June 15, 2016 2:03 PM
FILING ID: E7E8AFCBF499E
CASE NUMBER: 2015CW3183
Location Map
Rainbow Falls Mountain Trout, Inc.
Legend
Rainbow Falls Mountain Trout, Inc. Parcel
Lakes
Wetland Delineation
Stream
Direction of Flow
Section Line
500 250 0 500 1,000 Feet
Spronk Water Engineers, Inc.
1000 Logan Street Denver, CO 80203
APPENDIX A
Background photo: USDA NAIP 2015

Rainbow Falls Mountain Trout Inc.

December 12, 2016

Colorado Water Conservation Board
1313 Sherman Street, Room 721
Denver, CO 80203

RE: Request to Inundate Instream Flow Water Right on Trout Creek, Douglas County, Colorado.

Dear CWCB Staff:

On behalf of Rainbow Falls Mountain Trout, Inc. (Rainbow Falls), I am submitting this letter as a Request to Inundate a small section of Trout Creek in Douglas County, Colorado. The CWCB has an instream flow water right on Trout Creek that was decreed in Case No. W-8731-77 with a priority date of November 15, 1977. This request was prepared in conformance with Rule 7c of the CWCB Rules Concerning Instream Flow and Natural Lake Level Program (Rules).

Background

I am the owner and manager of Rainbow Falls, which operates on private fishing club on 105 acres on two parcels of land adjacent to Trout Creek. A map of the Rainbow Falls property is included as **Attachment 1**. As part of our operation, we raise and stock trout in nine on-channel lakes that are located on Trout Creek or on Big Spring Creek, a tributary to Trout Creek.

We recently filed an application for water rights and a plan for augmentation in Case No. 15CW3183 to augment out-of-priority depletions to Trout Creek resulting from diversions to storage to replace evaporation from our lakes, and from domestic, irrigation and other water uses on the property. A copy of the application is included as **Attachment 2**. The CWCB filed a Statement of Opposition to the application in February 2016.

A preliminary engineering report in support of the application was prepared in July 2016 by Greg Sullivan of Spronk Water Engineers, Inc. A copy of the preliminary engineering report is provided as **Attachment 3**. We hosted a site visit to the Rainbow Falls property with the opposers to the water court application on October 17, 2016, and representatives from the CWCB were in attendance. On December 5, 2016, our legal counsel, Alan Hill, received an email from Ema Schultz of the Colorado Department of Law requesting that we file an inundation request.

As described in the preliminary engineering report, seven of the nine lakes were constructed many years prior to the 1977 appropriation of the CWCB's ISF water right. However, two of the lakes, Bear Lake and Cougar Lake were reportedly constructed in approximately 2004 by the prior owner of the Rainbow Falls property, and therefore these lakes post-date the CWCB ISF water right. We understand that an inundation request is required for Bear Lake and Cougar Lake because they are junior to the 1977 CWCB instream flow water right on Trout Creek. Photographs of Bear Lake and Cougar Lake are included as **Attachment 4** and **Attachment 5**, respectively.

Information Provided Pursuant to Rule 7e

Rule 7e requests that seven types of information be provided as part of an inundation request. The following is our response to the required information.

1. **Locations of Bear and Cougar Lakes**

   a. Bear Lake: NW1/4, NW1/4 Sec 21, T 10 S, R 69 W (Douglas County).

   b. Cougar Lake: NW1/4, NW1/4 Sec 21, T 10 S R 69 W (Douglas County).

   c. A map showing the location of the two lakes is included as **Attachment 1**.

2. **Size of Lakes**

   a. Bear Lake - 1.36 acres, 3.92 AF, dam height < 10 ft.

   b. Cougar Lake 1.21 acres, 5.17 AF, dam height < 10 ft.

3. **Impact of the Inundation on the Natural Environment**

   a. Bear Lake – inundates approximately 600 feet of Trout Creek.

   b. Cougar Lake – inundates approximately 700 feet of Trout Creek.

   c. Positive Effects of the Inundations

   The inundations result in a net gain of healthy habitat for fish and other aquatic organisms. The following are among the positive effects of the inundations:

   i. **Improved water temperatures in the lakes:**

   As fishery manager, I monitor stream temperatures during low flows. I have measured temperatures as high as 78 degrees F in the unimproved portions of Trout Creek areas due to very shallow flow depth. Such temperatures can be deadly for trout. Both Bear and Cougar Lakes provide safe haven for trout to survive during these times. Water temperatures in the lakes decline dramatically with depth. I have measured up to 8 degrees cooler water just 24 inches below the surface. The water flowing in the unimproved section of Trout Creek upstream of Bear Lake is typically only 4 inches to 12 inches deep, and will run 76-78 degrees in August and September.

ii. **Improved water temperatures downstream of the lakes:**

The outlet from Bear Lake is a bottom discharge tube that discharges cooler water from the bottom of the lake to Trout Creek. This results in greatly improved trout habitat in Trout Creek downstream of Bear Lake.

iii. **Improved oxygen levels.**

The cooler water in the lakes and downstream of the lakes significantly improves the dissolved oxygen content of the water for the benefit of trout and other aquatic species.

iv. **Reduced sediment transport.**

Both lakes serve as "settling basins" the reduce sediment transport in Trout Creek downstream of the lakes.

v. **Benefits to aquatic invertebrates**

Both lakes provide enhanced habitat and concentration of midges, caddis flies, and tricos, as well as scuds and crawfish. These are a benefit to both the environment and the fish.

4. Unique or Rare Characteristics of the ISF Water Right to be Inundated

We are not aware of any unique or rare characteristics for the area of Trout Creek inundated by Bear Lake and Cougar Lake.

5. Regulatory Requirements or Conditions Imposed Upon the Applicant by Federal, State and/or Local Governments

a. We will comply with the terms and conditions of any decree that may be entered in the pending application for water rights and a plan for augmentation in Case No. 15CW3183 and any related stipulations that may be reached with opposers in the case.

b. We will continue to comply with the terms and conditions included in the substitute water supply plan (SWSP) that has been approved by the State Engineer since 2011. The most recent SWSP was approved by letter dated August 23, 2016, and a copy approval letter is included as **Attachment 6**.

c. We will continue to comply with terms and conditions of the Commercial Lakes License issued by the Colorado Department of Parks and Wildlife. A copy of the license is provided as **Attachment 7**.

6. All Terms and Conditions Included in Applicant's Water Court Decree

The proposed decree contains terms and conditions regarding the in-priority operation of each lake, the augmentation of out-of-priority depletions, and the associated accounting requirements. A copy of the current draft proposed decree, dated November 30, 2016, is included as **Attachment 8**.

7. Any Compensation or Mitigation Offered by the Person Proposing the Inundation

As described above, the presence of the lakes has resulted in substantial improvements to the environment for the benefit of trout and other aquatic species. In addition, the management and stewardship of the property through the operation of the Rainbow Falls Mountain Trout Fishing Club has resulted in other benefits as described below. Given the small size of the inundations, we don't believe that any additional compensation or mitigation is necessary.

a. **Erosion control measures**

The following are among the erosion control measures that I have performed on the property to reduce sediment flow into Trout Creek:

i. Constructed terracing around the west banks of Spring Lake, Eagle Lake, and Elk Lake, to redirect runoff around the lake shores. These off-channel improvements reduced or eliminated sedimentation from the US Forest Service (USFS) property to the west from entering the Trout Creek system.

ii. Repaired two wash-out areas on the east bank of the access road to the northern parcel to reduce sedimentation of Trout Creek. These are both off-channel improvements. The first area required significant rocking with a retaining wall anchored into the roadbed, with a thick-mill plastic underlayment and additional rock. This effectively traps the run-off water from the eastern slope in to a pooled area from which it slowly overflows the plastic and rocked edge. The second area was simply using compacted brush fill in a ravine to slow water runoff and trap sediment.

iii. Completed a high-flow run-around at the outlet of Bear Lake. This off-channel improvement directs excess high flow around a vulnerable section of Trout Creek. The redirected water is discharged back to Trout Creek through a rip-rapped area that slows the discharge

iv. Performed other minor terracing and enhancements on my property to slow runoff and reduce sediment from running into Trout Creek.

v. As described above the presence of the lakes themselves helps in trapping and reducing sediment in Trout Creek.

b. **Maintenance of a world class trout fishery**

We raise approximately 5,000 trout fingerlings each year. These fingerlings are purchased from State-licensed hatcheries, and are reared to larger size in fish races on our property. The reared fish are released into our lakes and Trout Creek as part of monthly stocking program from March through September. The size of the fish released typically range from 15 inches to 28 inches. All fishing on our property is catch-and-release.

We also manage fish populations in our lakes and in Trout Creek through our property. This includes providing supplemental feeding during times of low flows and during the winter.

The adjoining sections of Trout Creek upstream and downstream of our property benefit greatly, with both improved water quality and fish population as a result of our efforts.

c. Economic benefits from the Club to the area

We currently have 130 memberships, representing over 300 active members that utilize the facility. The members are predominantly Front Range residents from the Denver areas south to Pueblo. They drive in for daily fishing activities, increasing revenues to the local economy. Approximately 15% of our Members are from out-of-state, who travel here and add to our local economy. Our facility itself contributes to our state and local economy via purchases of fish, feed, all manner of ranch supplies for maintenance etc.

We appreciate your consideration of this inundation request. We believe that our operation and stewardship of Trout Creek through our property provides significant enhancement to the fishery and aquatic environment. We make every effort to comply with all state and local regulations, and it is our utmost desire to be a positive impact on our environment.

If you have any questions, feel free to contact me (Richard Johnson) by telephone at (719) 687-8690, or by email at rainbowfallsmt@yahoo.com. You may also contact Greg Sullivan of Spronk Water Engineers by telephone at (303) 861-9700 or by email at greg@spronkwater.com.

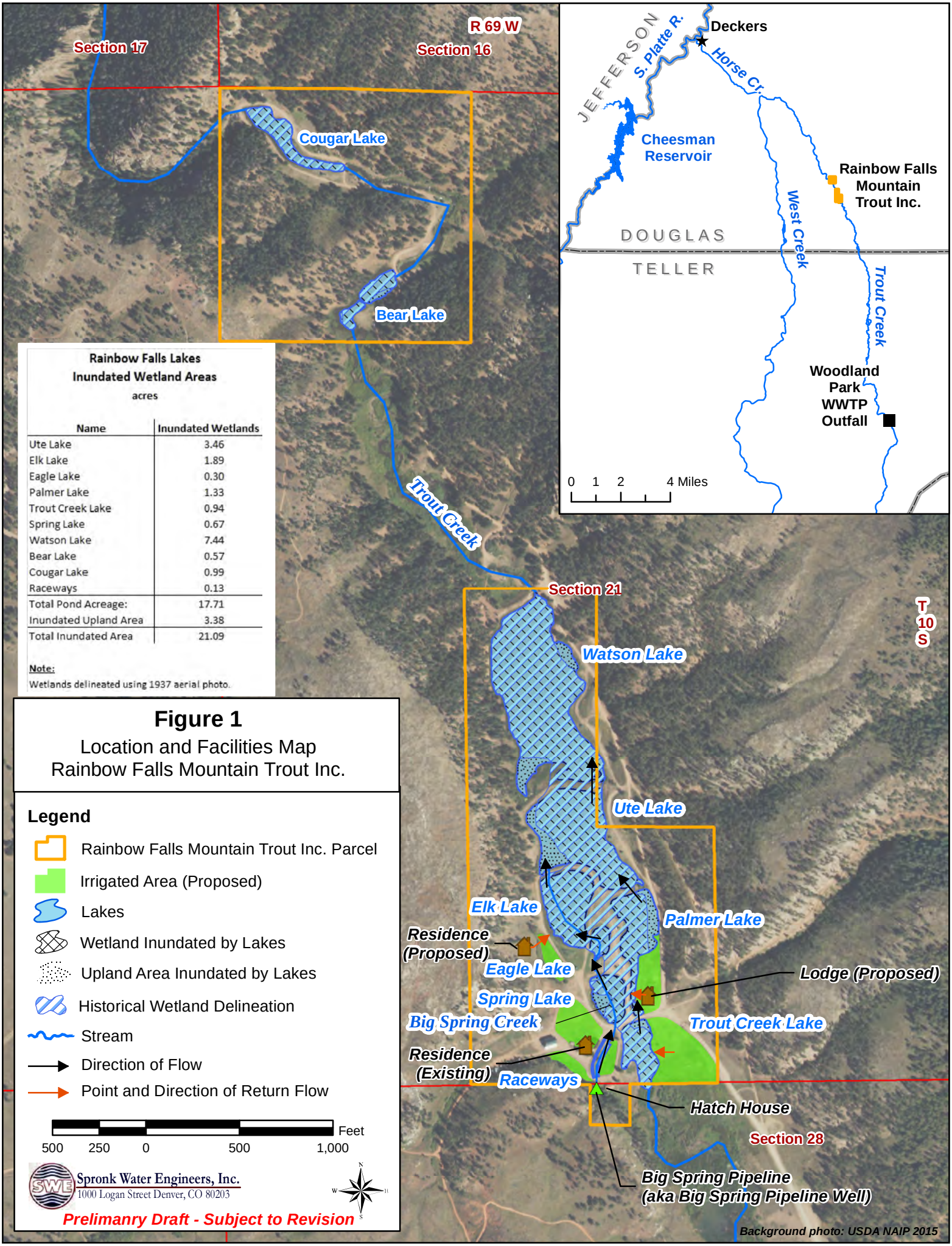
Thank You,

Richard Johnson
Rainbow Falls Mountain Trout Inc.

cc: Alan Hill, Esq.
Gregory K. Sullivan, P.E.

Enclosures:

Rainbow Falls Attachment 1 - Location Map.pdf
Rainbow Falls Attachment 2 - 15CW3183 Application.pdf
Rainbow Falls Attachment 3 - 15CW3183 Preliminary Engineering Report.pdf
Rainbow Falls Attachment 4 - Bear Lake Photograph.pdf
Rainbow Falls Attachment 5 - Cougar Lake Photograph.pdf
Rainbow Falls Attachment 6 - 2016-08-23 SWSP Approval Letter.pdf
Rainbow Falls Attachment 7 - Commercial Lake License.pdf
Rainbow Falls Attachment 8 - 2016-11-30 Draft Proposed Decree 15CW3183.pdf



Rainbow Falls Lakes
Inundated Wetland Areas
acres

Name	Inundated Wetlands
Ute Lake	3.46
Elk Lake	1.89
Eagle Lake	0.30
Palmer Lake	1.33
Trout Creek Lake	0.94
Spring Lake	0.67
Watson Lake	7.44
Bear Lake	0.57
Cougar Lake	0.99
Raceways	0.13
Total Pond Acreage:	17.71
Inundated Upland Area	3.38
Total Inundated Area	21.09

Note:
Wetlands delineated using 1937 aerial photo.

Figure 1

Location and Facilities Map
Rainbow Falls Mountain Trout Inc.

Legend

- Rainbow Falls Mountain Trout Inc. Parcel
- Irrigated Area (Proposed)
- Lakes
- Wetland Inundated by Lakes
- Upland Area Inundated by Lakes
- Historical Wetland Delineation
- Stream
- Direction of Flow
- Point and Direction of Return Flow

500 250 0 500 1,000 Feet

Spronk Water Engineers, Inc.
1000 Logan Street Denver, CO 80203

Prelimanry Draft - Subject to Revision

Background photo: USDA NAIP 2015

DATE FILED: January 7, 2016 2:31 PM

DISTRICT COURT, WATER DIVISION 1, STATE OF COLORADO Weld County Courthouse 901 9th Avenue P.O. Box 2038 Greeley, Colorado 80632 (970) 475-2510	
Concerning the Application for Water Rights of: **RAINBOW FALLS MOUNTAIN TROUT INC.,** a foreign corporation, in Douglas County.	▲ COURT USE ONLY ▲
YATES LAW FIRM, LLC Alan G. Hill, # 11343 303 East 17th Avenue, Suite 940 Denver, Colorado 80203 Telephone: (303) 722-2810 Facsimile: (303) 722-2890 Email: ahill@yateslawfirmllc.com	Case Number: **15 CW 3183**
CORRECTED APPLICATION FOR WATER STORAGE RIGHTS, SURFACE WATER RIGHTS AND APPROVAL OF PLAN FOR AUGMENTATION	

Applicant, Rainbow Falls Mountain Trout Inc., an Iowa corporation in good standing in Colorado, by and through its attorneys, Yates Law Firm, LLC, for its Application for Water Storage Rights, Surface Water Rights, and Approval of Plan for Augmentation, states as follows:

1. The name and address of the Applicant is:

   Rainbow Falls Mountain Trout Inc.
   P.O. Box 279
   Woodland Park, CO 80866

The purpose of this application is to adjudicate water storage rights, surface water rights, and a plan for augmentation for Rainbow Falls Mountain Trout, Inc., which operates a commercial fish culture facility and fishing club on 101 acres adjacent to Trout Creek in Douglas County, Colorado. The property and fish culture facilities were originally developed in the late 1800s as a part of the Manitou Park south of Woodland Park, Colorado. A map showing the locations of the water rights and structures in this application is attached as Exhibit A.

Please forward all correspondence or inquiries regarding this matter to: Alan G. Hill, Yates Law Firm, LLC, 303 East 17th Avenue, Suite 940, Denver, Colorado 80203

FIRST CLAIM FOR RELIEF
Ajudication of Water Storage Rights

Applicant claims the following water storage rights, collectively referred to herein as "Reservoirs."

2. Name of Reservoir: Ute Lake

   A. Legal Description: Located in the NE ¼ of the SW ¼ and the SE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the NE ¼ of the SW ¼ of said Section 21, at a point 1570 feet from the South line and 1990 feet from the West line of said Section 21 (NAD 83 UTM 13N 489722.7E 4334935.0N)

   B. Source: Trout Creek and Big Spring Creek
      1) Date of appropriation: 09/04/1956
      2) How appropriation was initiated: Construction and filling of lake
      3) Date water applied to beneficial use: 09/04/1956

   C. Amount Claimed: 17.57 acre-feet, absolute, with the right of continuous refills totaling 17.57 acre-feet in a given year.

   D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation.

   E. Surface area of high water line: 4.51 acres.

   F. Total capacity of reservoir: 17.57 acre-feet

   G. Name and address of owner of land on which structure for water right is located:

      Midwest Off Road Enthusiasts Inc.
      P.O. Box 279
      Woodland Park, CO 80866

3. Name of Reservoir: Elk Lake

   A. Legal Description: Located in the SE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Big Spring Creek in the SE ¼ of the SW ¼ of said Section 21, at a point 1150 feet from the South line and 1690 feet from the West line of said Section 21 (NAD 83 UTM 13N 489631.3E 4334787.3N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 07/07/1953
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use: 07/07/1953

C. Amount Claimed: 8.82 acre-feet, absolute, with the right of continuous refills totaling 8.82 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation.

E. Surface area of high water line: 2.12 acres.

F. Total capacity of reservoir in acre-feet: 8.82 acre-feet

G. Name and address of owner of land on which structure for water right is located:

   Midwest Off Road Enthusiasts Inc.
   P.O. Box 279
   Woodland Park, CO 80866

4. Name of Reservoir: Eagle Lake

A. Legal Description: Located in the SE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Big Spring Creek in the SE ¼ of the SW ¼ of said Section 21, at a point 750 feet from the South line and 1920 feet from the West line of said Section 21 (NAD 83 UTM 13N 489703.9E 4334683.8N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 07/07/1953
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use: 07/07/1953

C. Amount Claimed: 1.19 acre-feet, absolute, with the right of continuous refills totaling 1.19 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation.

E. Surface area of high water line: 0.38 acres.

F. Total capacity of reservoir in acre-feet: 1.19 acre-feet

G. Name and address of owner of land on which structure for water right is located:

Midwest Off Road Enthusiasts Inc.
P.O. Box 279
Woodland Park, CO 80866

5. Name of Reservoir: Palmer Lake

A. Legal Description: Located in the SE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the SE ¼ of the SW ¼ of said Section 21, at a point 1030 feet from the South line and 2220 feet from the West line of said Section 21 (NAD 83 UTM 13N 489794.9E 4334769.9N*)*

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 10/03/1975
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use: 10/03/1975

C. Amount Claimed: 10.17 acre-feet, absolute, with the right of continuous refills totaling 10.17 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation.

E. Surface area of high water line: 2.23 acres.

F. Total capacity of reservoir in acre-feet: 10.17 acre-feet

G. Name and address of owner of land on which structure for water right is located:

Midwest Off Road Enthusiasts Inc.
P.O. Box 279
Woodland Park, CO 80866

6. Name of Reservoir: Trout Creek Lake

A. Legal Description: Located in the SE ¼ of the SW ¼ of Section 21 and the NE ¼ of the NW ¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the SE ¼ of the SW ¼ of said Section 21, at a point 320 feet from the South line and 2160 feet from the West line of said Section 21 (NAD 83 UTM 13N 489787.3E 4334555.5N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 07/07/1953
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use 07/07/1953

C. Amount Claimed: 4.52 acre-feet, absolute, with the right of continuous refills totaling 4.52 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation.

E. Surface area of high water line: 1.08 acres.

F. Total capacity of reservoir in acre-feet: 1.08 acre-feet

G. Name and address of owner of land on which structure for water right is located:

   Midwest Off Road Enthusiasts Inc.
   P.O. Box 279
   Woodland Park, CO 80866

7. Name of Reservoir: Spring Lake

A. Legal Description: Located in the SE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Big Spring Creek in the SE ¼ of the SW ¼ of said Section 21, at a point 560 feet from the South line and 1960 feet from the West line of said Section 21 (NAD 83 UTM 13N 489715.3E 4334627.9N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 07/07/1953
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use 07/07/1953

C. Amount Claimed: 4.52 acre-feet, absolute, with the right of continuous refills totaling 4.52 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation..

E. Surface area of high water line: 1.00 acre.

F. Total capacity of reservoir in acre-feet: 4.52 acre-feet

G. Name and address of owner of land on which structure for water right is located:

Midwest Off Road Enthusiasts Inc.
P.O. Box 279
Woodland Park, CO 80866

8. Name of Reservoir: Watson Lake

A. Legal Description: Located in the NE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the NE ¼ of the SW ¼ of said Section 21, at a point 2600 feet from the North line and 1650 feet from the West line of said Section 21 (NAD 83 UTM 13N 489617.8E 4335249.8N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 09/04/1956
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use: 09/04/1956

C. Amount Claimed: 28.16 acre-feet, absolute, with the right of continuous refills totaling 28.16 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation..

E. Surface area of high water line: 8.34 acres.

F. Total capacity of reservoir in acre-feet: 28.16 acre-feet

G. Name and address of owner of land on which structure for water right is located:

Midwest Off Road Enthusiasts Inc.
P.O. Box 279
Woodland Park, CO 80866

9. Name of Reservoir: Bear Lake

A. Legal Description: Located in the NW ¼ of the NW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the NW ¼ of the NW ¼ of said Section 21, at a point 990 feet from the North line and 925 feet from the West line of said Section 21 (NAD 83 UTM 13N 489393.0E 4335768.3N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 08/16/2004
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use: 08/16/2004

C. Amount Claimed: 3.92 acre-feet, absolute, with the right of continuous refills totaling 3.92 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation.

E. Surface area of high water line: 1.36 acres.

F. Total capacity of reservoir in acre-feet: 3.92 acre-feet

G. Name and address of owner of land on which structure for water right is located:

   Midwest Off Road Enthusiasts Inc.
   P.O. Box 279
   Woodland Park, CO 80866

10. Name of Reservoir: Cougar Lake

A. Legal Description: Located in the NW ¼ of the NW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the NW ¼ of the NW ¼ of said Section 21, at a point 150 feet from the North line and 125 feet from the West line of said Section 21 (NAD 83 UTM 13N 489143.7E 4336026.9N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 08/16/2004
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use: 08/16/2004

C. Amount Claimed: 5.17acre-feet, absolute, with the right of continuous refills totaling 5.17 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation..

E. Surface area of high water line: 1.21acres.

F. Total capacity of reservoir in acre-feet: 5.17 acre-feet

G. Name and address of owner of land on which structure for water right is located:

Midwest Off Road Enthusiasts Inc.
P.O. Box 279
Woodland Park, CO 80866

SECOND CLAIM FOR RELIEF
Adjudication of Surface Water Rights

11. Applicant seeks surface water rights for diversions from Big Spring via the Big Spring Pipeline for Applicant's fish hatchery, residences, lodge and irrigation of a portion of Applicant's land. A combined total of 1.0 cfs is claimed for the following four uses described in this Second Claim for Relief.

A. Hatchery and Raceways
   1) Name of structure: Big Spring Pipeline/Hatchery
   2) Legal description of point of diversion: Located is in the NE ¼ of the NW ¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado, 10 feet south from the North line and 1985 feet east from the West line of said Section 28 (NAD 83 UTM 13N 489717E 4334442N)
   3) Source: Big Spring, source of Big Spring Creek and tributary to Trout Creek
   4) Date of appropriation: 12/31/1914
      i) How appropriation was initiated: Diversion of water for fish culture, stocking and commercial sale
      ii) Date water applied to beneficial use: 12/31/1914
   5) Amount claimed: 1.0 cfs, absolute
   6) All uses or proposed uses: fish culture, stocking and commercial sale
   7) Non-irrigation purpose description: Applicant operates a private commercial fishing club and operates a hatchery and raceways to raise fish for sport fishing, stocking and commercial sale. Water is diverted into holding areas, raceways and a hatchery building to culture mature fish.
   8) Name and address of owner of land on which structure for water right is located:
      Midwest Off Road Enthusiasts Inc.
      P.O. Box 279
      Woodland Park, CO 80866

B. Residences
   1) Name of structure: Big Spring Pipeline/Residences
   2) Legal description of point of diversion: Located is in the NE ¼ of the NW ¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado, 10 feet south from the North line and 1985 feet east from the West line of said Section 28 (NAD 83 UTM 13N 489717E 4334442N)

3) Source: Big Spring, tributary to Trout Creek
4) Date of appropriation: 12/31/1914
   i) How appropriation was initiated: Diversion of water for domestic use
   ii) Date water applied to beneficial use: 12/31/1914
5) Amount claimed: 1.0 cfs, absolute
6) All uses or proposed uses: Domestic use
7) Non-irrigation purpose description: Domestic use for three single-family residences
8) Name and address of owner of land on which structure for water right is located:
   Midwest Off Road Enthusiasts Inc.
   P.O. Box 279
   Woodland Park, CO 80866

C. Lodge
1) Name of structure: Big Spring Pipeline/Lodge
2) Legal description of point of diversion: Located is in the NE ¼ of the NW ¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado, 10 feet south from the North line and 1985 feet east from the West line of said Section 28 (NAD 83 UTM 13N 489717E 4334442N)
3) Source: Big Spring, tributary to Trout Creek
4) Date of appropriation: 12/30/2015, conditional
   i) How appropriation was initiated: Field investigation, engineering investigation and forming the intent to appropriate.
   ii) Date water applied to beneficial use: Conditional
5) Amount claimed: absolute 1.0 cfs, conditional
6) All uses or proposed uses: Domestic, commercial, and other water uses for a proposed overnight lodge
7) Non-irrigation purpose description: Water for a proposed overnight lodge
8) Name and address of owner of land on which structure for water right is located:
   Midwest Off Road Enthusiasts Inc.
   P.O. Box 279
   Woodland Park, CO 80866

D. Irrigation
1) Name of structure: Big Spring Pipeline/Irrigation
2) Legal description of point of diversion: Located is in the NE ¼ of the NW ¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado, 10 feet south from the North line and 1985 feet east from the West line of said Section 28 (NAD 83 UTM 13N 489717E 4334442N)
3) Source: Big Spring, tributary to Trout Creek
4) Date of appropriation: 12/31/1914
   i) How appropriation was initiated: Diversion of water for irrigation
   ii) Date water applied to beneficial use: 12/31/1914
5) Amount claimed: absolute 1.0 cfs, absolute
6) All uses or proposed uses: Irrigation of 5 acres

7) Name and address of owner of land on which structure for water right is located:
Midwest Off Road Enthusiasts Inc.
P.O. Box 279
Woodland Park, CO 80866

THIRD CLAIM FOR RELIEF
Approval of Plan for Augmentation

12. Applicant seeks a decree approving a plan for augmentation to augment or replace out-of-priority diversions to the Reservoirs, out-of-priority diversions for the uses described in the Second Claim for Relief described herein, and out-of-priority diversions associated with the Big Spring Pipeline Well, decreed in Case No. W-6138 (Div. 1). Approval of the plan for augmentation would allow Applicant to maintain water levels in the Reservoirs for the claimed uses and to supply water for the hatchery, residences, lodge and irrigation at times when curtailment of diversions or release would otherwise be required.

13. STRUCTURES TO BE AUGMENTED: The water storage rights claimed for the Reservoirs, the direct flow surface water rights claimed for the uses described in the Second Claim for Relief described herein (hatchery, residences, lodge and irrigation), and the Big Springs Pipeline Well.

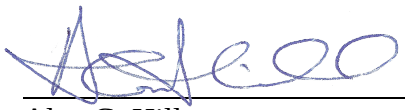
14. WATER RIGHTS TO BE USED FOR AUGMENTATION: Water stored under the storage rights claimed in this case will be released from one or more of the Reservoirs to augment out-of-priority diversions to storage in other of the Reservoirs; out-of-priority diversions for the hatchery, residences, lodge; and irrigation; and the Big Spring Pipeline Well water right. In addition, augmentation water will be obtained from the City of Woodland Park pursuant to a lease for delivery of fully consumable water delivered to Trout Creek by the City of Woodland Park from the sources and facilities described in the City's decrees in Consolidated Cases Nos. 86CW376 (Div.1) and 86CW123 (Div. 2), and Case No. 2002CW254 (Div. 1), including, but not limited to, reusable return flows from transmountain water rights, other fully consumable water rights, and fully augmented water rights.

15. DESCRIPTION OF PLAN: Applicant will use the Reservoirs for the purposes described in the First Claim for Relief herein. In addition, Applicant will divert water at the Big Springs Pipeline point of diversion for use in the hatchery, raceways, residences, lodge, for irrigation and for the Big Spring Pipeline Well for its decreed purposes. Any out-of-priority diversions will be augmented from the sources described herein. Credit will be taken by Applicant for water released from the Reservoirs to Trout Creek and for fully consumable water leased from the City of Woodland Park that is released to Trout Creek and reduced by appropriate transit losses. Applicant's plan provides a method for replacing water necessary to meet the lawful requirements of senior diverters at the time and location and to the extent that seniors would be deprived of their lawful entitlement. The operation of Applicant's plan for augmentation will not injuriously affect the owners of or persons entitled to use water rights under vested water rights or decreed conditional water rights.

WHEREFORE, Applicant prays for a decree approving the adjudicating the water storage rights and surface water rights described herein, and approving the plan for augmentation described herein, and for such further relief as the court deems proper.

Submitted this 31st day of December, 2015.

YATES LAW FIRM, LLC



Alan G. Hill
Attorneys for Rainbow Falls Mountain Trout Inc.

VERIFICATION

STATE OF COLORADO

CITY AND COUNTY OF DENVER

I, Gregory K. Sullivan, as consulting water engineer for the Applicant, state under oath that I have read this application and verify its content.

Gregory K. Sullivan, P.E.

Subscribed and affirmed before me in the City and County of Denver, State of Colorado, this 30th day of December 2015, by Gregory K. Sullivan.

SANDY ROBERTS
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID # 20034008248
MY COMMISSION EXPIRES MARCH 10, 2019

Sandy Roberts
Notary Public
My commission expires: 3/10/2019

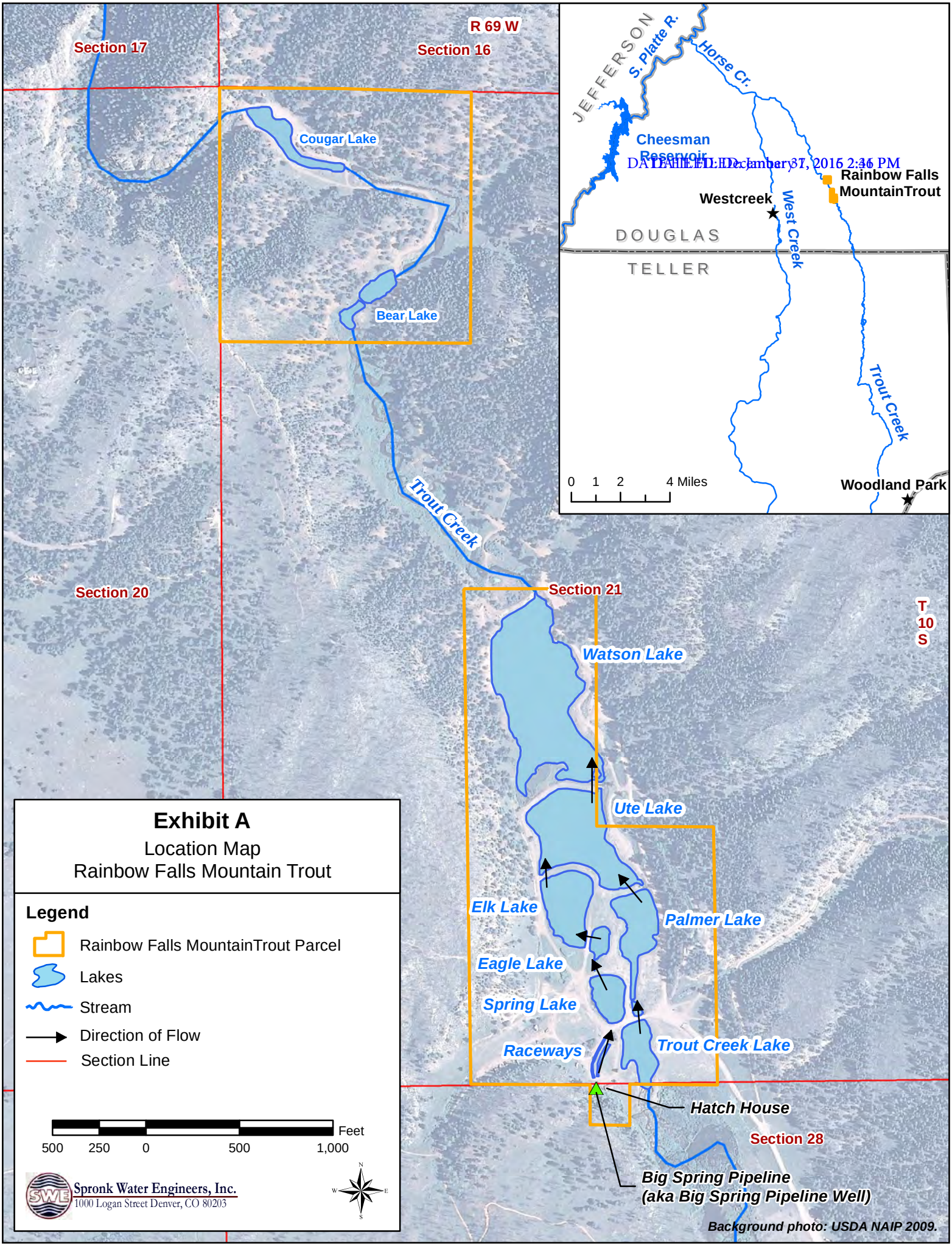


Exhibit A

Location Map
Rainbow Falls Mountain Trout

Legend

- Rainbow Falls MountainTrout Parcel
- Lakes
- Stream
- Direction of Flow
- Section Line

500 250 0 500 1,000 Feet

Spronk Water Engineers, Inc.
1000 Logan Street Denver, CO 80203

Preliminary Engineering Report

Application for
Water Storage Rights,
Surface Water Rights,
And Approval of Plan for Augmentation

Case No. 15CW3183
Water Division 1

Prepared for:

Rainbow Falls Mountain Trout Inc.

Prepared by:

Spronk Water Engineers, Inc.
Gregory K. Sullivan, P.E.

July 8, 2016

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Case No. 15CW3183
Water Division 1

1.0 Introduction

Rainbow Falls Mountain Trout Inc. ("Rainbow Falls" or "Club") operates a private fishing club along Trout Creek, a tributary of the South Platte River, upstream of Deckers, in Douglas County, Colorado. Existing and proposed water uses at the Club include rearing of fish for stocking in nine lakes on the property, and in-house uses for several residences and a lodge, and irrigation. The Club owns 105 acres contained in two parcels adjacent to Trout Creek as shown in **Figure 1**.

The Club holds several water rights that can be used for many of its current and proposed water uses. However, these water rights are relatively junior and subject to curtailment under strict priority administration. In order to improve the reliability of its water supply, the Club filed an application in Case No. 15CW3183 seeking judicial approval of water storage rights, surface water rights, and a plan for augmentation. A copy of the application is provided in **Appendix A**.

The Club has operated under a substitute water supply plan ("SWSP") approved by the State Engineer since 2011, and a request to renew the SWSP has been submitted and is under review.

This preliminary engineering report was prepared to describe the bases for the claimed surface water rights and storage water rights, and to describe the operation of a proposed plan for augmentation that will allow the Club to divert water out-of-priority provided that out-of-priority depletions are replaced to prevent injury to other water rights.

2.0 Rainbow Falls Facilities and Water Rights

Water facilities associated with the Club currently consist of two raceways where young trout are matured, nine lakes where trout are stocked and fished, a private residence, and an RV camper. The locations of these facilities are shown in **Figure 1**.

Water is supplied to the raceways and the lakes from a perennial spring known as Big Spring and from Trout Creek. Big Spring emerges from the hillside west of Trout Creek and flows through three of the lakes before joining Trout Creek. The remaining six lakes are supplied water from Big Spring and/or Trout Creek. Domestic water for indoor uses at the private residence and for the RV camper is also provided from Big Spring via a pipeline plumbed into the spring complex.

In addition to the existing water uses, the Club proposes to supply water to two additional residences (converting the current RV camper to a permanent residence), a 25-room lodge, and irrigation of up to five acres. Water for all indoor water uses will be provided by the Big Spring Pipeline. The proposed irrigation water use may be supplied from the Big Spring Pipeline or from water pumped from one or more of the Rainbow Falls Lakes.

Water generally flows from one lake to another as indicated by the arrows connecting the lakes in **Figure 1**. The water level in most of the lakes can be raised or lowered by one to three feet using AgriDrain screw-gates or stop-logs located at the lake outlets. The Club proposes to modify several of the lake outlets to increase the available operational storage. With the exception of Watson Lake, all of the lakes are non-jurisdictional (dam height less than ten feet). The Club is planning to reduce the dam height of Watson Lake from 10.25 to 9.9 feet so that it will also be non-jurisdictional.

Hydrographic surveys were performed in 2015 to develop stage-area-capacity information for each lake. Maps depicting the bathymetry from the hydrographic surveys are provided in **Appendix B**. Graphs depicting the stage-area-capacity information are provided in **Appendix C**, and stage-area-capacity tables are provided in **Appendix D**. Shown in the tables and figures are the top and bottom elevations for the current outlet structures and the proposed modified outlet structures. A summary of the maximum surface area and the total storage, operational storage, and dead storage for each lake is provided in **Table 1**. The total combined storage capacity is 75.65 acre-feet with 55.29 acre-feet of operational storage and 20.35 acre-feet of dead storage. The maximum surface area for all of the lakes plus the raceways totals 21.09 acres.

Water is consumed from the lakes through evaporation losses. When the water levels in the lakes are kept constant, then water is effectively diverted at the rate of the evaporation loss. Diversions to storage can be avoided by controlling the outlet works to draw down the storage volume at the evaporation rate. Water can be diverted to storage through in priority diversions or by augmentation of out-of-priority diversions.

Rainbow Falls holds a junior ground water right for the Big Spring Pipeline Well, which is used to supply water to the raceways, the lakes, and domestic uses. The Big Spring Pipeline Well was adjudicated in Case No. W-6138 for 1.0 cubic feet per second ("cfs") with a priority date of December 31, 1914 for domestic, commercial, fish culture, recreational and irrigation use. The 1914 priority date is relatively junior compared to downstream water rights on the South Platte River and will typically be out of priority, except during periods of high flows or low water demand in the basin. A copy of the W-6138 decree is provided in **Appendix E**.

As described in Section 4.0, the application in 15CW3183 requests approval of additional absolute and conditional water rights for direct flow uses and storage for the existing and proposed water uses. These additional water rights will have a 2015 priority date and will usually have to be augmented.

3.0 Water Demands and Consumptive Use

As described in Section 2.0, the Club's primary water uses are for fish rearing and maintaining storage in nine lakes as part of a private fishing club. Additional water is required for three existing or proposed residences, a proposed overnight lodge, and irrigation of up to five acres on the property. These existing and proposed uses will result in consumptive use of water and depletions to Trout Creek that will need to be augmented when they are out of priority to prevent injury to existing surface water rights. Analysis of the consumptive use and depletions resulting from the use of water from Big Spring and Trout Creek is provided below.

3.1. Lake Evaporation

Water is consumed from the lakes and the raceways through evaporation losses. When the water level in a lake is maintained at a constant level, then water is effectively diverted at the rate of the evaporation losses. Evaporation losses from the lakes were computed in accordance with the State Engineer's *General Guidelines for Substitute Water Supply Plans for Sand and Gravel Pits* (CDWR, 2011). The procedure for determining the evaporation losses from lakes involves determining the gross evaporation from the lakes and then reducing the gross evaporation by the consumptive use of the inundated native vegetation that existed prior to construction of the lakes (C.R.S. § 37-84-117(5)).

The raceways and all nine lakes are considered to be stream bed reservoirs. Elk Lake, Eagle Lake, Spring Lake, and the raceways are on the Big Spring Creek channel, while Trout Creek Lake, Palmer Lake, Ute Lake, Watson Lake, Bear Lake, and Cougar Lake are on the Trout Creek channel.

The annual gross evaporation from the Rainbow Falls Lakes and raceways was determined from the NOAA Technical Report NWS 33, *Evaporation Atlas for the Contiguous 48 United States* (NOAA, 1982). Gross free water surface evaporation was estimated to be 35.0 inches per year. The annual gross evaporation was distributed monthly based on the State Engineer procedures (CDWR, 2011), as shown in **Table 2** (row 2).

The two types of vegetation that existed at the site of the lakes and raceways prior to their construction were wetlands in the valley bottom adjacent to Trout Creek, and native grasses in the upland areas outside of the valley bottom. The typical mix of wetlands and native vegetation can be seen in the areas upstream and downstream of the Rainbow Falls property.

The total surface area of the raceways and nine lakes when full is currently 20.88 acres. The total surface area will increase to approximately 21.09 acres after improvements are made to several of the lakes and outlet structures as shown in **Table 1**. The area of historical wetland vegetation now covered by the nine lakes and raceways is estimated to be 17.71 acres, based on wetland delineation using an aerial photograph from 1937. The wetlands delineation is shown on **Figure 1**. The remaining upland area inundated by the lakes and raceways outside of

the delineated wetlands totals 3.38 acres, and it was assumed this area was formerly covered in native grasses.

Consumptive use from the wetlands was calculated using the Hargreaves method (Hargreaves 1985). The Hargreaves equation uses daily temperature data to determine grass reference evapotranspiration ("ET") values. Reference ET values were determined using daily weather data from Cheesman Reservoir for the period from 1949 - 2009.

The reference ET values were adjusted to a specific vegetation type using empirical crop coefficients that represent the water use characteristics of the specific plant type. Crop coefficients for large stand wetland were chosen based on research conducted by Allen (2007) under similar environmental conditions. Input data and results are included in **Appendix F**. The annual consumptive use for wetlands at the Rainbow Falls location averages 29.56 inches per year. A summary of the monthly average consumptive use amounts is provided in **Table 2** (row 4).

The historical consumptive use from upland vegetation and soil surface evaporation is limited by the effective precipitation. The effective precipitation was estimated as 70 percent of the measured mean monthly Cheesman Reservoir precipitation and totals 11.46 inches per year as shown in **Table 2** (row 5).

Monthly gross evaporation volumes were computed by multiplying the monthly evaporation rates by the maximum surface area for each lake. The annual gross evaporation volume totals 61.52 acre-feet, as shown in **Table 2** (row 6). The monthly volumes of consumptive use from wetlands and upland vegetation were computed as the unit consumptive use amounts multiplied by the areas inundated by each vegetation type. The annual wetland consumptive use totals 43.63 acre-feet (row 7), and the annual upland vegetation consumptive use totals 3.23 acre-feet (row 8).

Monthly net evaporation volumes were computed by subtracting the monthly wetland and upland vegetation consumptive use amounts from the monthly gross evaporation volumes. The total vegetation consumptive use exceeded the gross evaporation in the months of June through September, and the net evaporation was set to zero in those months in accordance with State Engineer policy that only allows vegetation consumptive use to be credited against the gross evaporation in the month of occurrence. The net annual evaporation volume was computed by summing the monthly values, resulting in a total of 20.81 acre-feet as shown in **Table 2** (row 9).

In accordance with State Engineer policy, the evaporation during periods of ice cover is assumed to be negligible. The ice cover period was estimated from daily temperature records as the period during the late fall and winter when the average daily temperature was less than 32°F. On average, the computed period of ice cover extended from late November to early

March. This is generally consistent with the observations of Richard Johnson, the owner and operator of the Club. The monthly net evaporation during the ice-free periods is summarized in **Table 2** (row 12) and totals **16.78 af/y**. The net evaporation volume will decline as the lakes are drawn down and the surface area decreases.

3.2. Irrigation Water Use

The Club proposes to irrigate up to five acres of lawns, gardens, and/or native grasses. For purposes of analysis, the irrigation consumptive use was conservatively estimated based on five acres of turfgrass.

The annual total consumptive use for turfgrass was computed using the Hargreaves method with daily weather data from Cheesman Reservoir for the period from 1949 – 2009 and turfgrass crop coefficients from ASCE (2016). Input data and results are included in **Appendix G**. The annual total consumptive use for turfgrass averaged 28.15 inches per year. Subtracting effective precipitation of 11.46 inches during the growing season leaves an annual irrigation water requirement of 20.13 inches as summarized in **Table 2** (row 15). The unit irrigation water requirement was multiplied by five acres resulting in the monthly and annual irrigation consumptive use volumes shown in **Table 2** (row 16), which totals **8.39 af/y**.

3.3. Domestic and Lodge Water Use

Water will be consumed through indoor water uses at three private residences and a proposed 25-room overnight lodge. The total indoor use for each residence is assumed to be one-third acre-feet per year ("af/y") resulting in total annual use of approximately 1.0 acre-feet. The indoor water use at the 25-room lodge was estimated based on 100 gallons per day per room and 75 percent occupancy resulting in total annual use of 2.10 af/y.

Wastewater from the residences and the lodge will be treated by typical non-evaporative septic systems. Based on an assumed 10 percent consumptive use of water treated by the septic systems, the annual consumptive use for the residences and lodge will total approximately **0.31 af/y** as shown in **Table 2** (row 19).

3.4. Total Consumptive Use and Depletions

The estimated total water consumption at the Rainbow Falls property for evaporation, irrigation of five acres, and indoor uses for three residences and a 25-room lodge totals **25.47 af/y**, and is distributed monthly as summarized in **Table 2** (row 20).

There will be a lag between the diversions and return flows for the indoor uses and for the irrigation uses. As a result, while the annual depletions will match the annual consumptive use over the long term, the timing of the depletions and consumptive use will not coincide on a monthly basis. An analysis of the timing of the septic system and irrigation return flows will be

performed based on the location(s) of the septic systems and the irrigated areas relative to the streams and lakes, and this timing will be incorporated into the augmentation plan accounting.

3.5. Available Physical Supply

The USGS established a streamflow gage approximately 600 feet downstream of the Watson Lake Dam in 2003, and the gage is generally operated from March through September. A summary of the monthly historical flows from 2003 through 2014 is provided in **Table 3**, and the daily flows during the same period are plotted in **Figure 2**. The seasonal Trout Creek flows have averaged 3,594 acre-feet, ranging from 1,338 acre-feet in 2011 to 11,348 acre-feet in 2007. Monthly flows generally peak in the spring months from snowmelt and rainfall runoff and reach a minimum in the late summer and fall. Monthly flows during May averaged 1,097 acre-feet, ranging from 262 acre-feet to 4,388 acre-feet, while monthly flows during September averaged 263 acre-feet, ranging from 67 acre-feet to 622 acre-feet.

There currently is no measuring device on Big Spring; however Richard Johnson reports that the flow is relatively steady year around, even during dry years. Based on the foregoing flow information, it appears there is adequate physical flow through the Rainbow Falls Lakes to maintain any desired storage volume provided that sufficient replacement supplies can be secured to replace out-of-priority diversions and depletions.

3.6. CWCB Instream Flow Water Right

There is an instream flow water right held by the Colorado Water Conservation Board ("CWCB") on Trout Creek for 2.0 cfs from the outlet of Manitou Park Lake approximately 5 miles upstream of the Rainbow Falls Lakes to the confluence of Trout Creek and West Creek approximately five miles downstream of the lakes. The Trout Creek instream flow water right was decreed in Case No. W-8731-77 with a priority date of November 15, 1977.

According to C.R.S. 37-92-102(3)(b) ("102(3)(b)"), CWCB instream flow water rights are subject to uses that were in existence as of the date of the instream flow appropriation. With the exception of Bear Lake and Cougar Lake, all of the Rainbow Falls Lakes were in existence prior to the 1977 appropriation of the CWCB instream flow water right on Trout Creek. Therefore, diversions to storage to replace evaporation in the lakes that existed prior to 1977 would not be subject to a priority call from the CWCB instream flow water right.

Similarly, the pre-existing uses of water from the Big Spring Pipeline or uses that would be allowed under the 1914 absolute water right for the Big Spring Pipeline Well would also not be subject to a call from the CWCB instream flow water right. Any new uses of water from the Big Spring Pipeline under the 2015 Big Spring Pipeline water right that were not in existence prior to 1977 would be junior to the CWCB instream flow water right.

4.0 Water Rights Claimed in 15CW3183

In the application in 15CW3183, the Club claims absolute storage water rights for the nine Rainbow Falls Lakes, and absolute and conditional direct flow water rights for the Big Spring Pipeline (aka Big Spring Pipeline Well). A summary of the claimed water rights is provided in **Table 4**. Descriptions of the claimed water rights and the bases for the claims are provided below. Each of the claimed water rights will be administered with a 2015 priority date based on the year of filing of the 15CW3183 application.

4.1. Storage Water Rights

The Club claims absolute storage water rights for the nine Rainbow Falls Lakes. The claimed storage volumes are based on the 2015 hydrographic survey of the lakes. Each of the storage right claims is for an initial fill of the lake and continuous refills totaling a volume equal to the storage capacity.

The appropriation dates were determined by review of aerial photography to establish the date that each lake first appeared in an aerial photograph. Water stored under these storage water rights will be used for irrigation, recreation, piscatorial, fish culture, domestic, commercial, and augmentation purposes.

The sources of water for each of the storage rights consist of Trout Creek and Big Springs Creek, including the precipitation that falls directly on the reservoir water surface and diffuse inflow from around the lakes. Out-of-priority diversions to storage will be augmented in accordance with the plan for augmentation that is described in **Section 5** of this report.

4.2. Direct Flow Water Rights

The Club also claims direct flow water rights for the Big Spring Pipeline for various existing and proposed water uses. There are four separate water rights claimed for 1.0 cfs from Big Spring for the following uses:

- Hatchery and Raceways – Hatching, culturing, and maturing of fish for stocking and sport fishing in the Rainbow Falls Lakes. The trout may also be marketed for commercial sale.

- Residences – Domestic use for up to three residences on the Club property.

- Irrigation – Irrigation of up to five acres of lawn and gardens within the Club property.

- Lodge – Domestic, commercial, and other uses associated with a proposed overnight lodge to be constructed on the property for members of the Club and their guests.

Each of the water rights is claimed in the amount of 1.0 cfs. However, because the flow rate of Big Spring is typically on the order of 1.0 cfs, the combined diversion rate for all of the water rights will be limited by the flow of the spring.

The water rights for the Hatchery and Raceways, Residences, and Irrigation are each claimed as absolute with an appropriation date of December 31, 1914, which is the appropriation date for the Big Spring Pipeline Well decreed in Case No. W-6138. The water right for the Lodge is claimed as conditional with an appropriation date of December 30, 2015 based on the date of filing of the 15CW3183 application.

5.0 Plan for Augmentation

The Club seeks approval of a plan for augmentation to facilitate uninterrupted use of water at the three residences, the proposed lodge, and for irrigation, and to replace evaporation losses from the Rainbow Falls Lakes when the water rights associated with these uses are out of priority as a result of downstream senior priority calls.

When there is a senior priority call in effect, the Club will typically continue to divert water from Big Spring for the proposed indoor and irrigation uses. Stream depletions for these uses will be computed based on the measured diversions minus the computed septic system and irrigation return flows. The Club will also divert water to replace evaporation and keep the most popular fishing lakes full. Water will be released from one or more of the other lakes to replace the out-of-priority depletions resulting from the indoor and irrigation uses and to replace any out-of-priority diversions to storage.

From time to time, the Club will exercise a lease of augmentation water from the City of Woodland Park ("Woodland Park") to partially or fully refill the evacuated space in the reservoirs. The reservoirs will also be refilled when the associated water rights are in priority.

The remainder of this section of the report describes the structures to be augmented, the proposed procedures for computing the out-of-priority stream depletions, and the supplies to be used to replace the out-of-priority depletions.

5.1. Structures to be Augmented

The structures to be augmented under the Club's plan for augmentation consist of the Big Spring Pipeline, and the nine Rainbow Falls Lakes. The locations of these structures are shown in **Figure 1**. The stream depletions resulting from diversions at the augmented structures will be computed as the measured diversions minus the computed septic system return flows and irrigation return flows.

Diversions from the Big Spring Pipeline for the indoor and irrigation uses will be measured separately using totalizing flow meters. The septic system return flow volume will be computed as 90 percent of the measured indoor water use, while the irrigation return flows will be computed as 15 percent of the measured irrigation use. Lagged septic system and irrigation return flows will be computed using unit response functions computed by the Glover Procedure based on (a) distances from the septic system facilities and irrigated area centroids to the stream and aquifer boundaries, and (b) aquifer transmissivity and storage coefficient values consistent with the sand and gravel aquifer materials. Because of the generally porous nature of the aquifer materials, it is expected that the return flow lags will be relatively short.

Diversions and releases from each the Rainbow Falls lakes will be computed weekly based on the measured change in storage using the following equation:

Diversion (+) or Release (-) = $S_t - S_{t-1} + (E / 12) \times A_t \times (1 - \%Ice)$

where

S_t = Storage volume on the current day (af)
S_{t-1} = Storage volume on the previous day (af)
E = Daily net evaporation rate (in)
A_t = Water surface area on the current day (acres)
%Ice = Portion of lake area covered by ice (%)

The daily storage volume and surface area for each lake swill be determined based on daily stage measurements and the stage-area-capacity table for each lake. The daily net evaporation will be net evaporation depths shown in **Table 2** (row 10) converted to daily amounts.

5.2. Replacement Water Sources

The Club will replace out of priority storage and out-of-priority depletions with releases from one or more of its lakes and by lease of reusable and fully consumable treated effluent from Woodland Park. Descriptions of how these sources will be used are provided below.

5.2.1. Storage Diversion or Release

As described above, during times that the Club's water rights are out of priority, the Club will typically meet its augmentation requirements by drawing down the storage volume in the Rainbow Falls Lakes at the rate of the aggregate net evaporation volume plus the depletions from the use of the Big Springs Pipeline for indoor and irrigation uses. The diversion or release volumes will be computed daily by application of the diversion/release equation presented in **Section 5.1** to all nine lakes and summing the results. If the aggregate diversion/release is positive, this means there has been a net diversion to storage that will need to be released or replaced if the associated water rights are out of priority. If the aggregate diversion/release is negative, this means there has been a net release from storage that can be used to offset out-of-priority depletions from use of diversions from the Big Spring Pipeline or to reduce the owe-the river accounts in the reservoirs.

5.2.2. Woodland Park Effluent Lease

The other source of replacement water will be reusable and fully consumable treated effluent leased from Woodland Park. The Club has leased reusable effluent from Woodland Park during the past five years for the Club's SWSP pursuant to a series of annual leases. The Club and Woodland Park are currently negotiating the terms of a proposed ten-year lease.

Woodland Park's water supply is provided from a combination of water imported from the Arkansas River basin via the Homestake Pipeline, and from local sources tributary to Trout Creek. The water delivered via the Homestake Pipeline is derived from Twin Lakes Reservoir and Canal Company shares and from Colorado Canal shares. These sources are fully consumable, except for a small amount of native water yield from the Twin Lakes shares.

Out-of-priority depletions resulting from use of Woodland Parks' Trout Creek water sources are replaced pursuant to augmentation plans decreed in Consolidated Case Nos. 86CW376 (Div. 1) and 86CW123 (Div. 2) and Case No. 02CW254. The source of replacement water for the augmentation plans is reusable effluent discharged to Trout Creek. In addition to use in its augmentation plans, Woodland Park also leases reusable effluent discharged to Trout Creek to several local entities for use in other augmentation plans and SWSP's. The City typically produces reusable effluent that exceeds its own augmentation requirements and lease obligations, and it is this excess effluent that Rainbow Falls is proposing to lease as an augmentation source.

Accounting for the Woodland Park augmentation plan is performed by the City staff. The effluent leased to Rainbow Falls will be reduced by 6.2% to account for an assumed 0.5% per mile transit loss for the 12.4 river miles between the Woodland Park Wastewater Treatment Plant outfall and the confluence of Big Spring Creek and Trout Creek.

As described above, the Club will take delivery of the leased effluent water from time to time to refill the empty space in the Rainbow Falls Lakes. This manner of use is well suited to variations in the monthly amount of excess reusable effluent that is available for lease.

6.0 Operations Analysis of Augmentation Plan

A computer model of the proposed Rainbow Falls augmentation plan was prepared to illustrate the operation of the plan and to demonstrate the adequacy of the plan through a prolonged drought. The Rainbow Falls Operations Model ("Model") was constructed in Microsoft Excel and simulates the operation of the plan for augmentation using a monthly time-step though a hypothetical 5-year study period during which there are no free river periods and the Club's water rights are assumed to be out-of-priority.

Summaries of the input data, input parameters, model operation, and output are provided below.

6.1. Input Data Tables

The input data to the Rainbow Falls Operations Model are largely contained in the following monthly data tables that are accessed by the model:

- Monthly Net Evaporation Rates (inches) –Monthly net evaporation rates computed as gross evaporation minus the consumptive use of the inundated native vegetation (see **Table 2**).
- Monthly % Ice Cover – Percentage of each month in which the lakes are ice covered resulting in no net evaporation (See **Table 2**).
- Composite Area-Capacity Table – A composite area-capacity table for the active storage portion of the nine Rainbow Falls Lakes assuming the lakes are drawn down in the following order: Watson, Ute, Palmer, Trout Creek, Cougar, Bear, Elk, Eagle, Spring.
- Monthly Big Spring Flow (af) – Big Spring is assumed to flow at a continuous rate of 1.0 cfs.
- Monthly Available Trout Creek Flow (af) – The monthly flow in Trout Creek was conservatively assumed to be the historical monthly low flow during the 2003 – 2014 period of record. A flow of 2.5 cfs was assumed during the months of October – March when the gage is not operated.
- Monthly Free River Days – Assumed to be zero during all months of the five year study period.

6.2. Input Parameters

Various input parameters are specified by the model user to conduct a simulation run as follows:

- No. Residences – Number of residences supplied by the Big Spring Pipeline.
- No. Lodge Room – Number of rooms in the proposed overnight lodge.

- Irrigated Area – Irrigated acreage on the property.
- Annual Woodland Park Lease Amount (acre-feet) – Annual volume of replacement water leased from Woodland Park. Delivery of the leased water is assumed to occur in July of each year.

6.3. Monthly Water Supply Operations

The following is a summary of the computational procedures used in the Rainbow Falls Operations Model to simulate monthly water use, reservoir operations, and operation of the proposed augmentation plan.

1. Evaporation - Compute the monthly net evaporation from the lakes based on the net monthly evaporation rate and the simulated aggregate surface area of the lakes. The monthly net evaporation is reduced by the percentage of each winter months in which the lakes are assumed to be ice covered.
2. Indoor and Irrigation Consumptive Use – Compute the monthly consumptive use for the indoor uses associated with the residences and lodge and the irrigation use (see **Table 2**).
3. In-Priority Consumptive Use - Compute the monthly in-priority consumptive use, limited by the available streamflow during months with free river periods.
4. Out-of-Priority Consumptive Use – Compute the out-of-priority consumptive use requiring augmentation during months with no free-river periods.
5. In-Priority Storage – Compute the in-priority diversions to storage as the minimum of the available physical flow or the available storage space in the lakes during months with free river periods.
6. Storage of Water Leased from Woodland Park – Compute the storage of water leased from Woodland Park as the minimum of the specified monthly lease volume or the available storage space in the lakes. If there is not sufficient space to store the amount of flow specified to be leased, the remaining leased amount is assumed to be stored in the next month.
7. Reservoir Outflow – Compute the monthly outflow from the reservoir as the evaporation during months with no free river plus water released to augment the out-of-priority consumptive use.
8. End-of-Month Storage Volume – Compute the end-of-month storage volume as the beginning-of-month storage plus in-priority storage plus the storage of water leased from Woodland Park minus the computed evaporation minus the augmentation releases.

The foregoing steps are repeated in sequential order for each monthly time-step during the five-year simulation period.

6.4. Operations Model Results

In order to demonstrate the adequacy of the proposed augmentation plan, the Operations Model was used to simulate the full extent of the proposed augmentation plan through a five-year drought with no in-priority diversions or storage. The results of the Operations Model simulation are shown in **Figure 3**.

It was assumed that all three residences and the 25-room lodge were in place, and five acres of turfgrass were irrigated. The reservoirs were assumed to be full at the beginning of the simulation period (operational storage = 55.29 acre-feet). The composite operational storage was assumed to be drawn down at the net evaporation rate plus additional releases to augment the depletions associated with the indoor uses and irrigation use. Leases of water from Woodland Park were simulated in varying annual amounts to partially refill the lakes.

The simulated annual evaporation averaged 12.34 acre-feet, ranging from 15.82 acre-feet in Year 1 to 10.83 acre-feet in Year 5. Annual releases for replacement of depletions for the indoor and irrigation uses totaled 8.65 acre-feet each year. Annual leases from Woodland Park averaged 15.0 acre-feet, of which 14.07 acre-feet were delivered for storage in the lakes.

The minimum simulated combined operational storage was 10.53 acre-feet in Year 5. At this storage level, Elk Lake, Eagle Lake, and Spring Lake remain full, which is desirable as these are the most important fishing lakes to the Club The other lakes are drawn down to the bottom of their operational storage capacity (Bear Lake also has some operational storage remaining).

The results of the Operations Model simulation show that the Rainbow Falls Augmentation Plan can function through an extended drought to maintain adequate storage levels for fishing while replacing out-of-priority depletions and preventing injury to other water rights.

7.0 Information Relied On

The following information was relied upon in preparing this report. Copies of the documents are available upon request.

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Figures

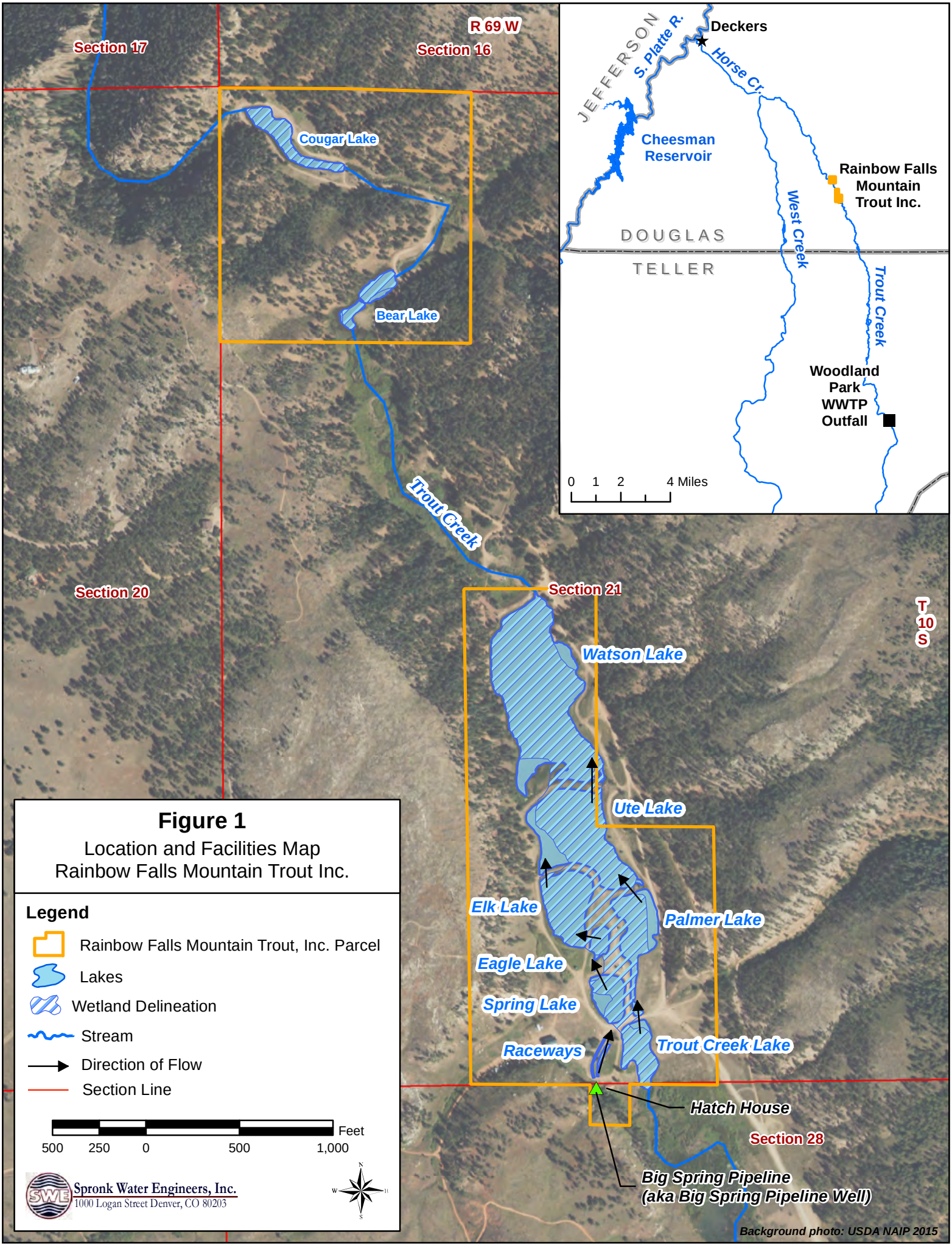
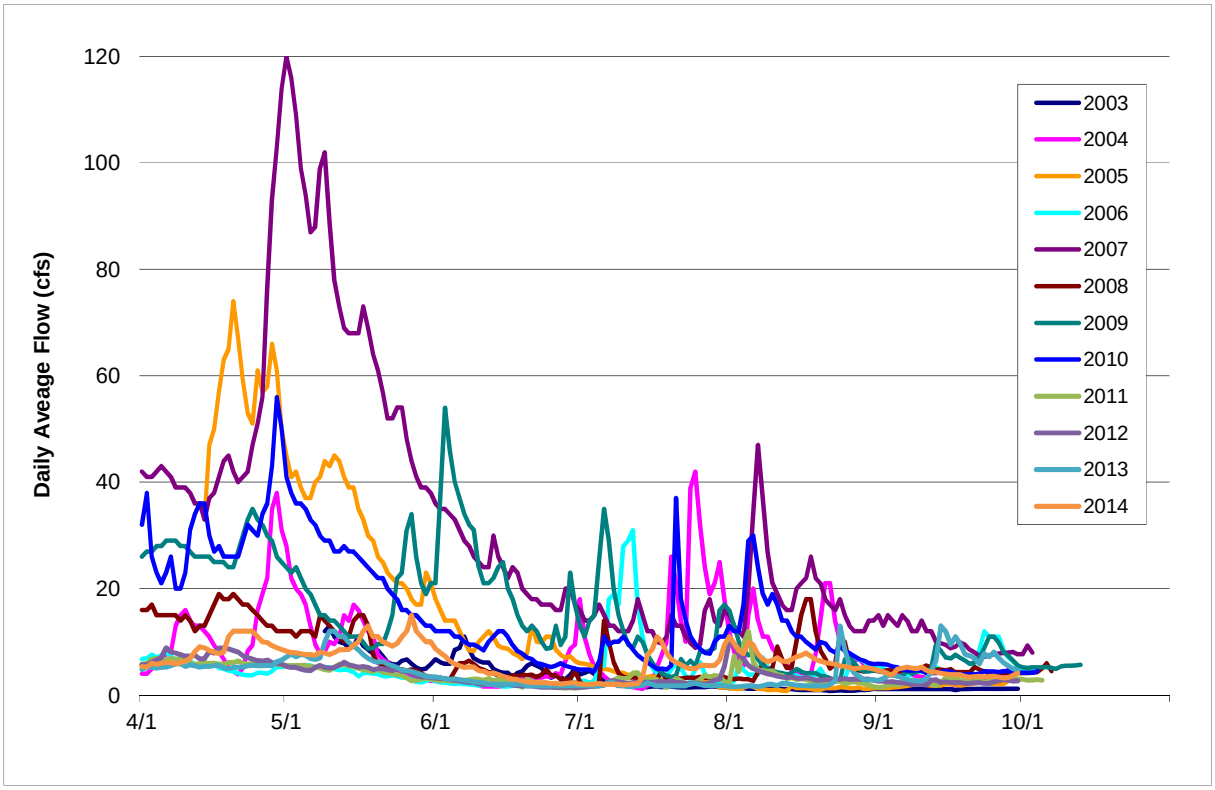


Figure 1

Location and Facilities Map
Rainbow Falls Mountain Trout Inc.

Figure 2

Daily Average Flow (cfs)
Trout Creek Below Fern Creek Near Westcreek, Colorado (USGS 0671620)
2003 - 2014



Five Low Flow Years (2003 - 2014)

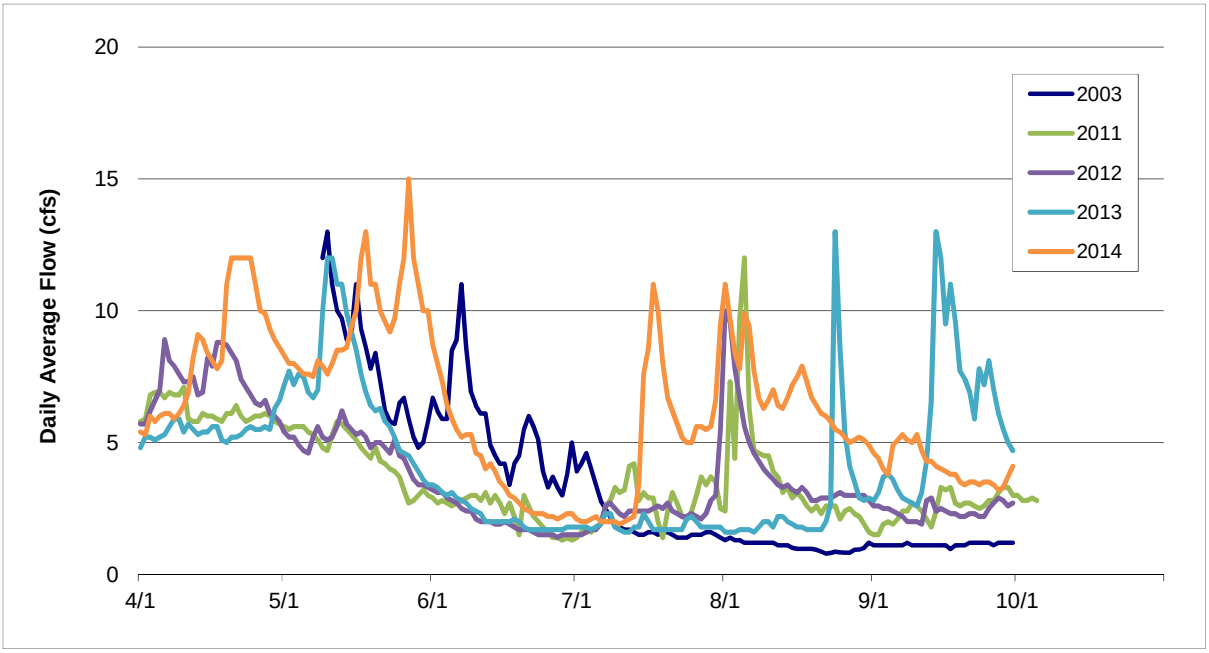


Figure 3

Summary of Results
Augmentation Plan Operations Model
Rainbow Falls Mountain Trout Inc.
Case No. 15CW3183

With dam and outlet modifications

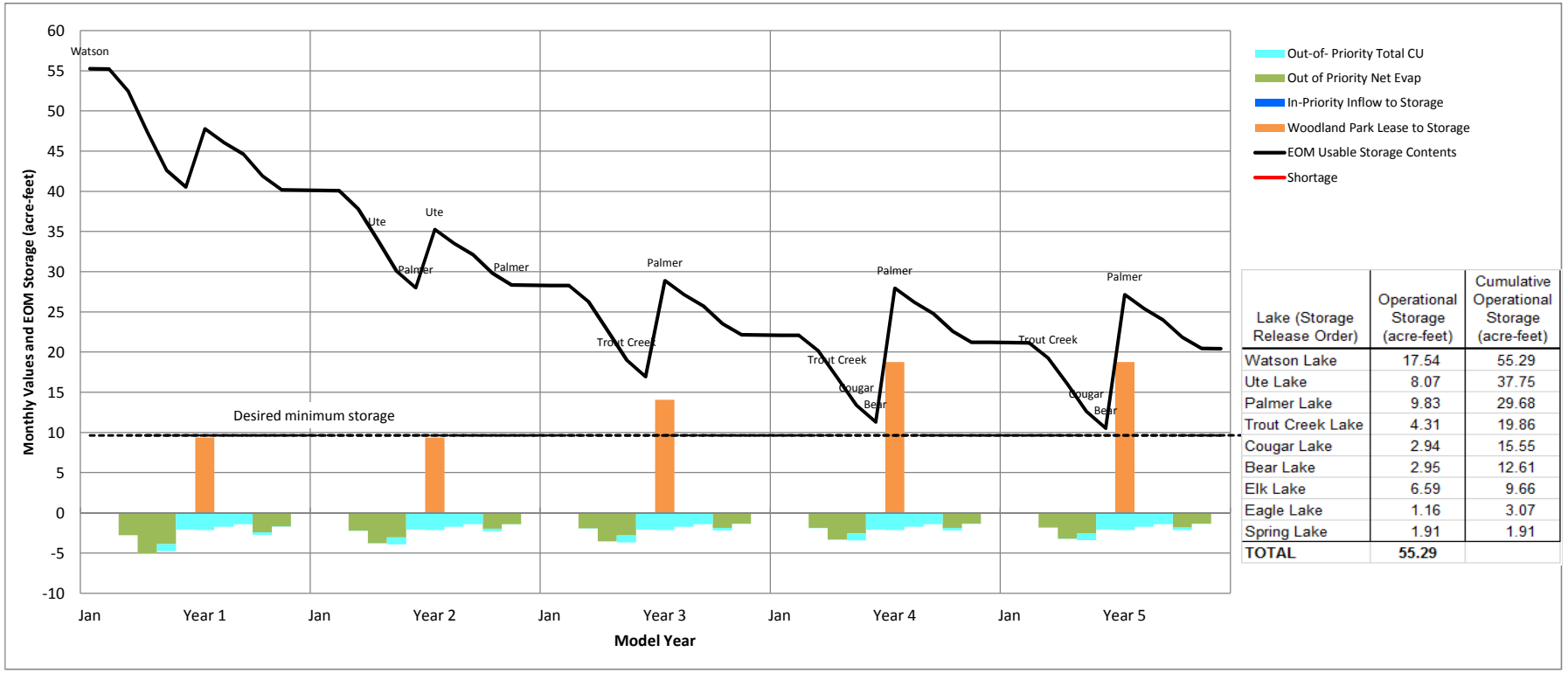
Water Use Inputs	
Usable Storage Capacity (af)	55.29

Single family residences	3
Lodge rooms	25
Irrigated acres	5.0

Woodland Park Lease*		
Year	Lease	Delivered
1	10.0	9.38
2	10.0	9.38
3	15.0	14.07
4	20.0	18.76
5	20.0	18.76
Average	15.0	14.07

* Assume occurs in July

Annual Evaporation and CU (acre-feet)			
Year	Evaporation	Other	Total
1	15.82	8.70	24.51
2	12.51	8.70	21.20
3	11.56	8.70	20.26
4	10.99	8.70	19.68
5	10.83	8.70	19.53
Average	12.34	8.70	21.04



Lake (Storage Release Order)	Operational Storage (acre-feet)	Cumulative Operational Storage (acre-feet)
Watson Lake	17.54	55.29
Ute Lake	8.07	37.75
Palmer Lake	9.83	29.68
Trout Creek Lake	4.31	19.86
Cougar Lake	2.94	15.55
Bear Lake	2.95	12.61
Elk Lake	6.59	9.66
Eagle Lake	1.16	3.07
Spring Lake	1.91	1.91
TOTAL	**55.29**	

Notes:

(1) The black line in the chart depicts the simulated combined operational storage contents in the Rainbow Falls Lakes. The labels indicate intiation of drawdown of the specified lake.

(2) The ponds are simulated to be drawn down in the sequence shown along the right side of the chart based on the monthly volumes of (a) net evaporation, (b) total consumptive use for the other water uses.

(3) Water is added to storage in July based on the specified annual Woodland Park Lease volumes.

(4) The desired minimum storage contents (9.64 acre-feet) represents the combined operational storage of Elk Lake, Eagle Lake, and Spring Lake, which the Club will attempt to keep full. However, the operational storage available in these lakes is available for augmentation use if necessary.

Tables

Table 1

Summary of Surface Area and Storage Capacity
Rainbow Falls Lakes
Rainbow Falls Mountain Trout Inc.

Lake	Maximum Surface Area (acres)	Total Capacity (acre-feet)	Operational Storage (acre-feet)	Dead Storage (acre-feet)
Watson Lake	7.07	19.74	17.54	2.20
Ute Lake	4.51	17.57	8.07	9.50
Palmer Lake	2.23	10.17	9.83	0.35
Trout Creek Lake	1.08	4.52	4.31	0.22
Cougar Lake	1.21	5.17	2.94	2.23
Bear Lake	1.36	3.92	2.95	0.97
Elk Lake	2.12	8.82	6.59	2.24
Eagle Lake	0.38	1.21	1.16	0.05
Spring Lake	1.00	4.52	1.91	2.61
Raceways	0.13	-	-	-
Total	21.09	75.65	55.29	20.35

Note:
Surface area and storage capacity from 2015 Hydrographic Survey.

Table 2

Monthly Evaporation and Consumptive Use
Rainbow Falls Mountain Trout Inc.

Surface Areas

Total water surface area (ac)	21.09
Total wetlands inundated (ac)	17.71
Total upland area inundated (ac)	3.38

Domestic Parameters

Number residences	3
Annual water use (AF/res)	0.333
Consumptive use %	10%

Evaporation Parameters

Average annual evaporation (in)	35.0
% of precipitation consumed by upland vegetation	70%
Elevation above mean sea level (ft)	7550

Irrigation Parameters

Acres Irrigated	5.00
Annual Irrigation consumptive use (AF/acre)	2.32

Lodge Parameters

Number rooms	25
Daily use (gpd/room)	100
Average occupancy (%)	75%
Consumptive use %	10%

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	Lake Evaporation													
(1)	Monthly evaporation distribution >6500 ft.	1.0%	3.0%	6.0%	9.0%	12.5%	15.5%	16.0%	13.0%	11.0%	7.5%	4.0%	1.5%	100.0%
(2)	Gross evaporation (in)	0.35	1.05	2.10	3.15	4.38	5.43	5.60	4.55	3.85	2.63	1.40	0.53	35.00
(3)	Average monthly precipitation (in)	0.46	0.57	1.28	1.66	1.94	1.69	2.54	2.61	1.21	1.06	0.76	0.59	16.37
(4)	Wetland CU (in)	0.00	0.00	0.00	0.07	2.12	6.67	8.01	6.88	4.66	1.14	0.00	0.00	29.56
(5)	Precipitation consumed by upland vegetation (in)	0.32	0.40	0.90	1.16	1.36	1.18	1.78	1.83	0.85	0.74	0.53	0.41	11.46
(6)	Gross pond and raceway evaporation (AF)	0.62	1.85	3.69	5.54	7.69	9.53	9.84	8.00	6.77	4.61	2.46	0.92	61.52
(7)	Wetland CU (AF)	0.00	0.00	0.00	0.10	3.13	9.84	11.82	10.16	6.88	1.69	0.01	0.00	43.63
(8)	Precipitation consumed by upland vegetation (AF)	0.09	0.11	0.25	0.33	0.38	0.33	0.50	0.52	0.24	0.21	0.15	0.12	3.23
(9)	Net evaporation (AF)	0.53	1.73	3.44	5.11	4.17	-	-	-	-	2.72	2.31	0.81	20.81
(10)	Net evaporation (in)	0.30	0.99	1.96	2.91	2.37	-	-	-	-	1.55	1.31	0.46	11.84
(11)	Percent of month with no ice cover	0%	0%	81%	100%	100%	100%	100%	100%	100%	100%	87%	0%	
(12)	Net evaporation on ice-free days (AF)	0.00	0.00	2.77	5.11	4.17	0.00	0.00	0.00	0.00	2.72	2.00	0.00	16.78
	Irrigation Use													
(13)	Turfgrass consumptive use (in)	0.00	0.00	0.00	0.26	3.37	6.12	6.87	5.90	4.17	1.43	0.02	0.00	28.15
(14)	Effective precipitation (in)	0.32	0.40	0.90	1.16	1.36	1.18	1.78	1.83	0.85	0.74	0.53	0.41	11.46
(15)	Irrigation water requirement (in)	0.00	0.00	0.00	0.00	2.01	4.94	5.09	4.07	3.32	0.69	0.00	0.00	20.13
(16)	Irrigation consumptive use (AF)	0.000	0.000	0.000	0.000	0.839	2.059	2.121	1.697	1.383	0.287	0.000	0.000	8.39
	Domestic and Lodge Use													
(17)	Domestic water use (AF)	0.085	0.077	0.085	0.082	0.085	0.082	0.085	0.085	0.082	0.085	0.082	0.085	1.00
(18)	Lodge water use (AF)	0.178	0.161	0.178	0.173	0.178	0.173	0.178	0.178	0.173	0.178	0.173	0.178	2.10
(19)	Domestic and lodge consumptive use (AF)	0.026	0.024	0.026	0.025	0.026	0.025	0.026	0.026	0.025	0.026	0.025	0.026	0.31
(20)	Total Consumptive Use	0.026	0.024	2.798	5.138	5.040	2.085	2.148	1.723	1.409	3.032	2.024	0.026	25.47

Notes:

(1) Monthly evaporation distribution for elevations above 6500 feet msl (CDWR, 2009).
(2) Average annual evaporation from NOAA Tech Report NWS 33 x monthly evaporation distribution (1).
(3) Average monthly precipitation at Cheesman (1949-2009).
(4) Average monthly consumptive use using Hargreaves method (REF-ET) and large stand wetlands coefficients (Allen, 2007).
(5) Average monthly precipitation (3) x percentage of precipitation consumed by upland vegetation.
(6) Gross evaporation (2) converted to feet x total water surface area.
(7) Wetland CU (4) converted to feet x total wetlands inundated.
(8) Precipitation consumed by upland vegetation (5) and x upland area inundated.
(9) Gross pond evaporation (6) minus wetland CU (7) minus precipitation consumed by upland vegetation (8) .
(10) Net evaporation (9) divided by total water surface area converted to inches.
(11) Percent of month with average daily temperatures greater than 32°F using Cheesman temperature data (1949-2009).
(12) Net evaporation (9) x % month with no ice cover (10).
(13) Average monthly turfgrass consumptive use based on Hargreaves method (REF-ET) and turfgrass coefficients (ASCE, 2016).
(14) Average monthly precipitation (3) x 70%.
(15) Turfgrass consumptive use (13) minus effective precipitation (14).
(16) Irrigation water requirement (15) converted to feet x irrigated area.
(17) 0.333 AF/y x 3 residences, spread evenly year round.
(18) 20 rooms x 100 gpd/room x 75% occupancy, converted to acre-feet and spread evenly year around.
(19) Domestic use + lodge use x 10% consumption (septic treatment).
(20) Net evaporation (12) plus irrigation consumptive use (16) plus domestic and lodge consumptive use (19).

Information Sources

- Aerial Imagery: 1937 Douglas County historic aerial photo from Google Earth, USDA 1999 DOQ, and USDA 2009 NAIP.
- Allen, R.G. and Robison, C.W., April 2007. Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho, U of Idaho.
- Colorado Division of Water Resources, 2009. General Guidelines for Substitute Water Supply Plans for Sand and Gravel Pits.
- NOAA Technical Report NWS TR-33, June 1982. Evaporation Atlas for the Contiguous 48 United States.
- Allen, R.G. and U. of Idaho, 2001. REF-ET: Evapotranspiration Calculation Software for FAO and ASCE Standardized Equations, Version 3.1.01.

Table 3

Monthly Flow (acre-feet)
Trout Creek Below Fern Creek
Near Westcreek, Colorado (USGS 0671620)
2003 - 2014

Year	Apr	May	Jun	Jul	Aug	Sep	Total
2003	-	-	328	126	65	67	-
2004	733	652	188	760	567	201	3,101
2005	-	1,980	610	213	76	117	-
2006	334	262	120	521	261	333	1,832
2007	2,900	4,388	1,436	817	1,186	622	11,348
2008	908	576	241	228	423	271	2,648
2009	1,652	1,062	1,335	700	350	378	5,478
2010	1,823	1,539	519	570	779	269	5,500
2011	369	283	141	165	230	151	1,338
2012	431	300	122	146	250	143	1,391
2013	325	437	132	113	170	356	1,534
2014	502	591	237	292	421	243	2,286
Average	998	1,097	451	388	398	263	3,594
Max	2,900	4,388	1,436	817	1,186	622	11,348
Min	325	262	120	113	65	67	1,338

Notes:

Data are not reported during October - March.

No data available for Apr and May 2003, and Apr 2005.

Table 4

Water Rights Claimed in Case No. 15CW3183
Rainbow Falls Mountain Trout Inc.

Storage Water Rights	Volume (ac-ft)	Max Surface Area (ac)	Appropriation Date	Source
Ute Lake	17.57	4.51	9/4/1956	Trout Creek and Big Spring Creek
Elk Lake	8.82	2.12	7/7/1953	
Eagle Lake	1.19	0.38	7/7/1953	
Palmer Lake	10.17	2.23	10/3/1975	
Trout Creek Lake	4.52	1.08	7/7/1953	
Spring Lake	4.52	1.00	7/7/1953	
Watson Lake	28.16	8.34	9/4/1956	
Bear Lake	3.92	1.36	8/16/2004	
Cougar Lake	5.17	1.21	8/16/2004	

Direct Flow Water Rights	Rate (cfs)	Appropriation Date	Source
Big Spring Pipeline/Hatchery	1.00	12/31/1914	Big Spring
Big Spring Pipeline/Residences	1.00	12/31/1914	
Big Spring Pipeline/Lodge	1.00	12/31/1914	
Big Spring Pipeline/Irrigation	1.00	12/31/1914	

Appendix A

Application for Water Storage Rights
Surface Water Rights
and Approval of Plan for Augmentation
Case No. 15CW3183

DATE FILED: January 7, 2016 2:31 PM

DISTRICT COURT, WATER DIVISION 1, STATE OF COLORADO Weld County Courthouse 901 9th Avenue P.O. Box 2038 Greeley, Colorado 80632 (970) 475-2510	
Concerning the Application for Water Rights of: **RAINBOW FALLS MOUNTAIN TROUT INC.,** a foreign corporation, in Douglas County.	▲ COURT USE ONLY ▲
YATES LAW FIRM, LLC Alan G. Hill, # 11343 303 East 17th Avenue, Suite 940 Denver, Colorado 80203 Telephone: (303) 722-2810 Facsimile: (303) 722-2890 Email: ahill@yateslawfirmllc.com	Case Number: **15 CW 3183**
CORRECTED APPLICATION FOR WATER STORAGE RIGHTS, SURFACE WATER RIGHTS AND APPROVAL OF PLAN FOR AUGMENTATION	

Applicant, Rainbow Falls Mountain Trout Inc., an Iowa corporation in good standing in Colorado, by and through its attorneys, Yates Law Firm, LLC, for its Application for Water Storage Rights, Surface Water Rights, and Approval of Plan for Augmentation, states as follows:

1. The name and address of the Applicant is:

   Rainbow Falls Mountain Trout Inc.
   P.O. Box 279
   Woodland Park, CO 80866

The purpose of this application is to adjudicate water storage rights, surface water rights, and a plan for augmentation for Rainbow Falls Mountain Trout, Inc., which operates a commercial fish culture facility and fishing club on 101 acres adjacent to Trout Creek in Douglas County, Colorado. The property and fish culture facilities were originally developed in the late 1800s as a part of the Manitou Park south of Woodland Park, Colorado. A map showing the locations of the water rights and structures in this application is attached as Exhibit A.

Please forward all correspondence or inquiries regarding this matter to: Alan G. Hill, Yates Law Firm, LLC, 303 East 17th Avenue, Suite 940, Denver, Colorado 80203

FIRST CLAIM FOR RELIEF
Ajudication of Water Storage Rights

Applicant claims the following water storage rights, collectively referred to herein as "Reservoirs."

2. Name of Reservoir: Ute Lake

   A. Legal Description: Located in the NE ¼ of the SW ¼ and the SE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the NE ¼ of the SW ¼ of said Section 21, at a point 1570 feet from the South line and 1990 feet from the West line of said Section 21 (NAD 83 UTM 13N 489722.7E 4334935.0N)

   B. Source: Trout Creek and Big Spring Creek
      1) Date of appropriation: 09/04/1956
      2) How appropriation was initiated: Construction and filling of lake
      3) Date water applied to beneficial use: 09/04/1956

   C. Amount Claimed: 17.57 acre-feet, absolute, with the right of continuous refills totaling 17.57 acre-feet in a given year.

   D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation.

   E. Surface area of high water line: 4.51 acres.

   F. Total capacity of reservoir: 17.57 acre-feet

   G. Name and address of owner of land on which structure for water right is located:

      Midwest Off Road Enthusiasts Inc.
      P.O. Box 279
      Woodland Park, CO 80866

3. Name of Reservoir: Elk Lake

   A. Legal Description: Located in the SE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Big Spring Creek in the SE ¼ of the SW ¼ of said Section 21, at a point 1150 feet from the South line and 1690 feet from the West line of said Section 21 (NAD 83 UTM 13N 489631.3E 4334787.3N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 07/07/1953
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use: 07/07/1953

C. Amount Claimed: 8.82 acre-feet, absolute, with the right of continuous refills totaling 8.82 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation.

E. Surface area of high water line: 2.12 acres.

F. Total capacity of reservoir in acre-feet: 8.82 acre-feet

G. Name and address of owner of land on which structure for water right is located:

   Midwest Off Road Enthusiasts Inc.
   P.O. Box 279
   Woodland Park, CO 80866

4. Name of Reservoir: Eagle Lake

A. Legal Description: Located in the SE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Big Spring Creek in the SE ¼ of the SW ¼ of said Section 21, at a point 750 feet from the South line and 1920 feet from the West line of said Section 21 (NAD 83 UTM 13N 489703.9E 4334683.8N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 07/07/1953
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use: 07/07/1953

C. Amount Claimed: 1.19 acre-feet, absolute, with the right of continuous refills totaling 1.19 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation.

E. Surface area of high water line: 0.38 acres.

F. Total capacity of reservoir in acre-feet: 1.19 acre-feet

G. Name and address of owner of land on which structure for water right is located:

Midwest Off Road Enthusiasts Inc.
P.O. Box 279
Woodland Park, CO 80866

5. Name of Reservoir: Palmer Lake

A. Legal Description: Located in the SE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the SE ¼ of the SW ¼ of said Section 21, at a point 1030 feet from the South line and 2220 feet from the West line of said Section 21 (NAD 83 UTM 13N 489794.9E 4334769.9N*)*

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 10/03/1975
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use: 10/03/1975

C. Amount Claimed: 10.17 acre-feet, absolute, with the right of continuous refills totaling 10.17 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation.

E. Surface area of high water line: 2.23 acres.

F. Total capacity of reservoir in acre-feet: 10.17 acre-feet

G. Name and address of owner of land on which structure for water right is located:

Midwest Off Road Enthusiasts Inc.
P.O. Box 279
Woodland Park, CO 80866

6. Name of Reservoir: Trout Creek Lake

A. Legal Description: Located in the SE ¼ of the SW ¼ of Section 21 and the NE ¼ of the NW ¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the SE ¼ of the SW ¼ of said Section 21, at a point 320 feet from the South line and 2160 feet from the West line of said Section 21 (NAD 83 UTM 13N 489787.3E 4334555.5N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 07/07/1953
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use 07/07/1953

C. Amount Claimed: 4.52 acre-feet, absolute, with the right of continuous refills totaling 4.52 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation.

E. Surface area of high water line: 1.08 acres.

F. Total capacity of reservoir in acre-feet: 1.08 acre-feet

G. Name and address of owner of land on which structure for water right is located:

   Midwest Off Road Enthusiasts Inc.
   P.O. Box 279
   Woodland Park, CO 80866

7. Name of Reservoir: Spring Lake

A. Legal Description: Located in the SE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Big Spring Creek in the SE ¼ of the SW ¼ of said Section 21, at a point 560 feet from the South line and 1960 feet from the West line of said Section 21 (NAD 83 UTM 13N 489715.3E 4334627.9N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 07/07/1953
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use 07/07/1953

C. Amount Claimed: 4.52 acre-feet, absolute, with the right of continuous refills totaling 4.52 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation..

E. Surface area of high water line: 1.00 acre.

F. Total capacity of reservoir in acre-feet: 4.52 acre-feet

G. Name and address of owner of land on which structure for water right is located:

Midwest Off Road Enthusiasts Inc.
P.O. Box 279
Woodland Park, CO 80866

8. Name of Reservoir: Watson Lake

A. Legal Description: Located in the NE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the NE ¼ of the SW ¼ of said Section 21, at a point 2600 feet from the North line and 1650 feet from the West line of said Section 21 (NAD 83 UTM 13N 489617.8E 4335249.8N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 09/04/1956
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use: 09/04/1956

C. Amount Claimed: 28.16 acre-feet, absolute, with the right of continuous refills totaling 28.16 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation..

E. Surface area of high water line: 8.34 acres.

F. Total capacity of reservoir in acre-feet: 28.16 acre-feet

G. Name and address of owner of land on which structure for water right is located:

Midwest Off Road Enthusiasts Inc.
P.O. Box 279
Woodland Park, CO 80866

9. Name of Reservoir: Bear Lake

A. Legal Description: Located in the NW ¼ of the NW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the NW ¼ of the NW ¼ of said Section 21, at a point 990 feet from the North line and 925 feet from the West line of said Section 21 (NAD 83 UTM 13N 489393.0E 4335768.3N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 08/16/2004
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use: 08/16/2004

C. Amount Claimed: 3.92 acre-feet, absolute, with the right of continuous refills totaling 3.92 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation.

E. Surface area of high water line: 1.36 acres.

F. Total capacity of reservoir in acre-feet: 3.92 acre-feet

G. Name and address of owner of land on which structure for water right is located:

   Midwest Off Road Enthusiasts Inc.
   P.O. Box 279
   Woodland Park, CO 80866

10. Name of Reservoir: Cougar Lake

A. Legal Description: Located in the NW ¼ of the NW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the NW ¼ of the NW ¼ of said Section 21, at a point 150 feet from the North line and 125 feet from the West line of said Section 21 (NAD 83 UTM 13N 489143.7E 4336026.9N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 08/16/2004
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use: 08/16/2004

C. Amount Claimed: 5.17acre-feet, absolute, with the right of continuous refills totaling 5.17 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation..

E. Surface area of high water line: 1.21acres.

F. Total capacity of reservoir in acre-feet: 5.17 acre-feet

G. Name and address of owner of land on which structure for water right is located:

Midwest Off Road Enthusiasts Inc.
P.O. Box 279
Woodland Park, CO 80866

SECOND CLAIM FOR RELIEF
Adjudication of Surface Water Rights

11. Applicant seeks surface water rights for diversions from Big Spring via the Big Spring Pipeline for Applicant's fish hatchery, residences, lodge and irrigation of a portion of Applicant's land. A combined total of 1.0 cfs is claimed for the following four uses described in this Second Claim for Relief.

A. Hatchery and Raceways
   1) Name of structure: Big Spring Pipeline/Hatchery
   2) Legal description of point of diversion: Located is in the NE ¼ of the NW ¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado, 10 feet south from the North line and 1985 feet east from the West line of said Section 28 (NAD 83 UTM 13N 489717E 4334442N)
   3) Source: Big Spring, source of Big Spring Creek and tributary to Trout Creek
   4) Date of appropriation: 12/31/1914
      i) How appropriation was initiated: Diversion of water for fish culture, stocking and commercial sale
      ii) Date water applied to beneficial use: 12/31/1914
   5) Amount claimed: 1.0 cfs, absolute
   6) All uses or proposed uses: fish culture, stocking and commercial sale
   7) Non-irrigation purpose description: Applicant operates a private commercial fishing club and operates a hatchery and raceways to raise fish for sport fishing, stocking and commercial sale. Water is diverted into holding areas, raceways and a hatchery building to culture mature fish.
   8) Name and address of owner of land on which structure for water right is located:
      Midwest Off Road Enthusiasts Inc.
      P.O. Box 279
      Woodland Park, CO 80866

B. Residences
   1) Name of structure: Big Spring Pipeline/Residences
   2) Legal description of point of diversion: Located is in the NE ¼ of the NW ¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado, 10 feet south from the North line and 1985 feet east from the West line of said Section 28 (NAD 83 UTM 13N 489717E 4334442N)

3) Source: Big Spring, tributary to Trout Creek
4) Date of appropriation: 12/31/1914
   i) How appropriation was initiated: Diversion of water for domestic use
   ii) Date water applied to beneficial use: 12/31/1914
5) Amount claimed: 1.0 cfs, absolute
6) All uses or proposed uses: Domestic use
7) Non-irrigation purpose description: Domestic use for three single-family residences
8) Name and address of owner of land on which structure for water right is located:
   Midwest Off Road Enthusiasts Inc.
   P.O. Box 279
   Woodland Park, CO 80866

C. Lodge
1) Name of structure: Big Spring Pipeline/Lodge
2) Legal description of point of diversion: Located is in the NE ¼ of the NW ¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado, 10 feet south from the North line and 1985 feet east from the West line of said Section 28 (NAD 83 UTM 13N 489717E 4334442N)
3) Source: Big Spring, tributary to Trout Creek
4) Date of appropriation: 12/30/2015, conditional
   i) How appropriation was initiated: Field investigation, engineering investigation and forming the intent to appropriate.
   ii) Date water applied to beneficial use: Conditional
5) Amount claimed: absolute 1.0 cfs, conditional
6) All uses or proposed uses: Domestic, commercial, and other water uses for a proposed overnight lodge
7) Non-irrigation purpose description: Water for a proposed overnight lodge
8) Name and address of owner of land on which structure for water right is located:
   Midwest Off Road Enthusiasts Inc.
   P.O. Box 279
   Woodland Park, CO 80866

D. Irrigation
1) Name of structure: Big Spring Pipeline/Irrigation
2) Legal description of point of diversion: Located is in the NE ¼ of the NW ¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado, 10 feet south from the North line and 1985 feet east from the West line of said Section 28 (NAD 83 UTM 13N 489717E 4334442N)
3) Source: Big Spring, tributary to Trout Creek
4) Date of appropriation: 12/31/1914
   i) How appropriation was initiated: Diversion of water for irrigation
   ii) Date water applied to beneficial use: 12/31/1914
5) Amount claimed: absolute 1.0 cfs, absolute
6) All uses or proposed uses: Irrigation of 5 acres

7) Name and address of owner of land on which structure for water right is located:
Midwest Off Road Enthusiasts Inc.
P.O. Box 279
Woodland Park, CO 80866

THIRD CLAIM FOR RELIEF
Approval of Plan for Augmentation

12. Applicant seeks a decree approving a plan for augmentation to augment or replace out-of-priority diversions to the Reservoirs, out-of-priority diversions for the uses described in the Second Claim for Relief described herein, and out-of-priority diversions associated with the Big Spring Pipeline Well, decreed in Case No. W-6138 (Div. 1). Approval of the plan for augmentation would allow Applicant to maintain water levels in the Reservoirs for the claimed uses and to supply water for the hatchery, residences, lodge and irrigation at times when curtailment of diversions or release would otherwise be required.

13. STRUCTURES TO BE AUGMENTED: The water storage rights claimed for the Reservoirs, the direct flow surface water rights claimed for the uses described in the Second Claim for Relief described herein (hatchery, residences, lodge and irrigation), and the Big Springs Pipeline Well.

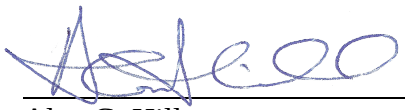
14. WATER RIGHTS TO BE USED FOR AUGMENTATION: Water stored under the storage rights claimed in this case will be released from one or more of the Reservoirs to augment out-of-priority diversions to storage in other of the Reservoirs; out-of-priority diversions for the hatchery, residences, lodge; and irrigation; and the Big Spring Pipeline Well water right. In addition, augmentation water will be obtained from the City of Woodland Park pursuant to a lease for delivery of fully consumable water delivered to Trout Creek by the City of Woodland Park from the sources and facilities described in the City's decrees in Consolidated Cases Nos. 86CW376 (Div.1) and 86CW123 (Div. 2), and Case No. 2002CW254 (Div. 1), including, but not limited to, reusable return flows from transmountain water rights, other fully consumable water rights, and fully augmented water rights.

15. DESCRIPTION OF PLAN: Applicant will use the Reservoirs for the purposes described in the First Claim for Relief herein. In addition, Applicant will divert water at the Big Springs Pipeline point of diversion for use in the hatchery, raceways, residences, lodge, for irrigation and for the Big Spring Pipeline Well for its decreed purposes. Any out-of-priority diversions will be augmented from the sources described herein. Credit will be taken by Applicant for water released from the Reservoirs to Trout Creek and for fully consumable water leased from the City of Woodland Park that is released to Trout Creek and reduced by appropriate transit losses. Applicant's plan provides a method for replacing water necessary to meet the lawful requirements of senior diverters at the time and location and to the extent that seniors would be deprived of their lawful entitlement. The operation of Applicant's plan for augmentation will not injuriously affect the owners of or persons entitled to use water rights under vested water rights or decreed conditional water rights.

WHEREFORE, Applicant prays for a decree approving the adjudicating the water storage rights and surface water rights described herein, and approving the plan for augmentation described herein, and for such further relief as the court deems proper.

Submitted this 31st day of December, 2015.

YATES LAW FIRM, LLC



Alan G. Hill
Attorneys for Rainbow Falls Mountain Trout Inc.

VERIFICATION

STATE OF COLORADO

CITY AND COUNTY OF DENVER

I, Gregory K. Sullivan, as consulting water engineer for the Applicant, state under oath that I have read this application and verify its content.

Gregory K. Sullivan, P.E.

Subscribed and affirmed before me in the City and County of Denver, State of Colorado, this 30th day of December 2015, by Gregory K. Sullivan.

SANDY ROBERTS
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID # 20034008248
MY COMMISSION EXPIRES MARCH 10, 2019

Sandy Roberts
Notary Public
My commission expires: 3/10/2019

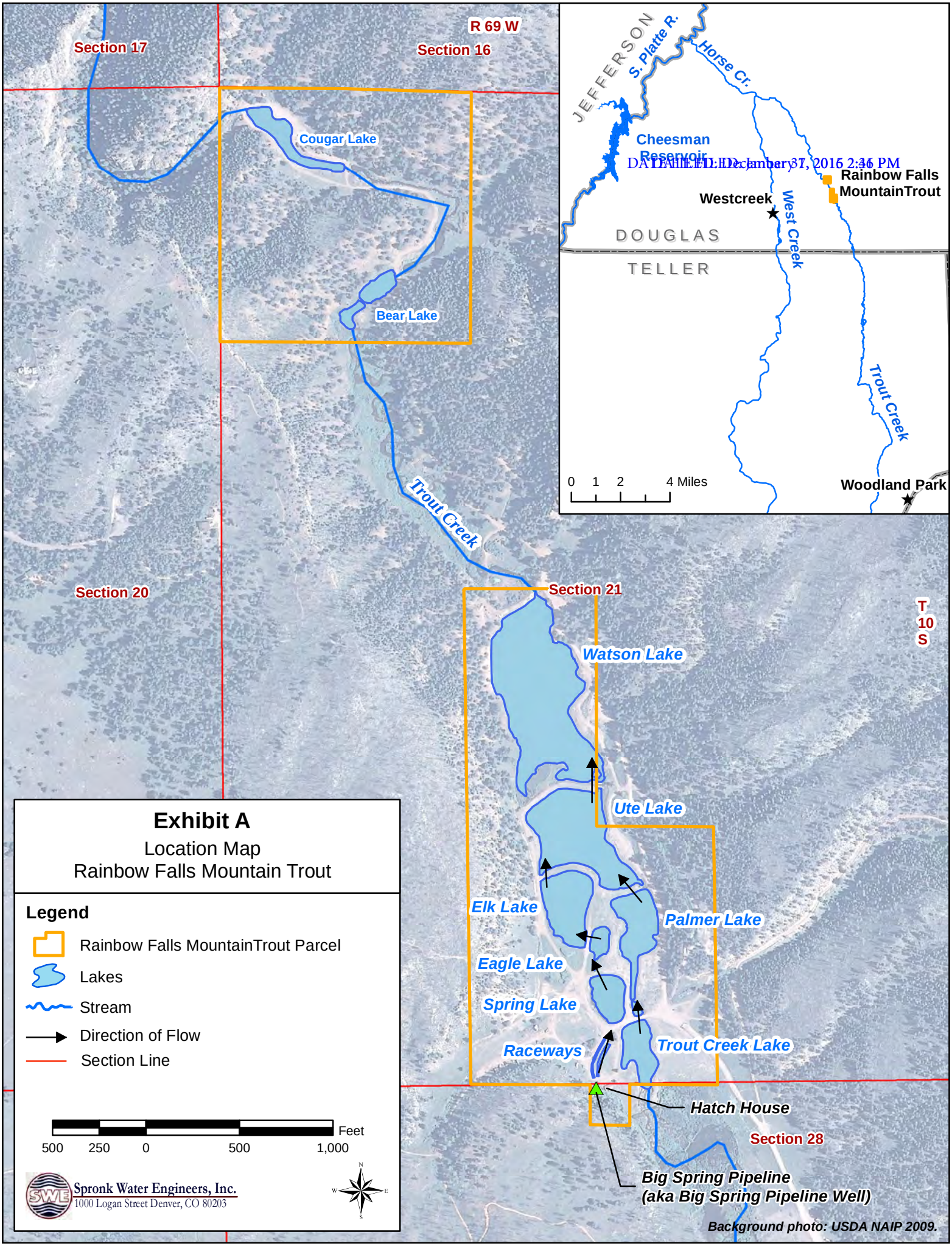


Exhibit A

Location Map
Rainbow Falls Mountain Trout

Legend

- Rainbow Falls MountainTrout Parcel
- Lakes
- Stream
- Direction of Flow
- Section Line

500 250 0 500 1,000 Feet

Spronk Water Engineers, Inc.
1000 Logan Street Denver, CO 80203

Appendix B

Hydrographic Survey Maps
Rainbow Falls Lakes

Elevation	Area (Sq ft)	Volume (Cu Ft)
7432.191	59,880.67	181,202.42
7432	59,165.90	169,833.90
7431	42,871.28	116,652.03
7430	35,233.71	77,719.83
7429	28,439.50	45,718.72
7428	17,426.22	21,049.11
7427	8,148.66	6,304.81
7426	1,204.35	424.18
7425	0.0	0.0

Dam Crest
EL = 7432.191

Top Pipe
EL = 7432.86

Top Pipe
EL = 7432.96

Dam Crest
EL = 7433.775

Water Surface
EL = 7431.351

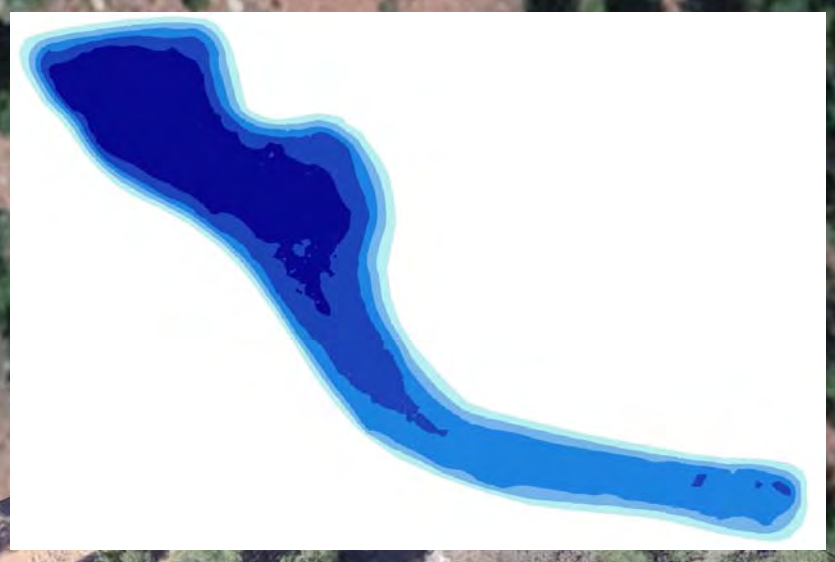
Bear Lake
1.2 Acres
Dam Crest: 7432.191
Spillway Crest: 7432.86

0 10 20 40 Feet

Rainbow Falls Mountain Trout

Bear Lake

the MappingNetwork



Elevation	Area (Sq ft)	Volume (Cu Ft)
7415.8	74,732.16	380,254.49
7415	68,374.18	322,882.68
7414	56,200.76	260,394.94
7413	50,647.69	207,344.65
7412	46,200.71	158,702.36
7411	42,179.78	114,518.74
7410	38,087.12	74,386.31
7409	26,002.39	39,755.52
7408	18,673.32	16,776.67
7407	4,968.52	2,062.86
7406	0.01	0

Top Pipe
EL = 7414.565

Top Pipe
EL = 7414.932

Dam Crest
EL = 7415.8

Water Surface
EL = 7412.75

Cougar Lake
1.15 Acres
Dam Crest: 7415.8
Spillway Crest: 7414.565

Top Pipe
EL = 7415.981

Dam Crest
EL = 7416.704

Top Pipe
EL = 7415.574

0 20 40 80 Feet

Rainbow Falls Mountain Trout

Cougar Lake

the MappingNetwork

Elevation	Area (Sq ft)	Volume (Cu Ft)
7469.405	17,279.30	62,066.38
7469	16,917.24	55,159.76
7468	15,352.33	38,933.69
7467	13,492.28	24,387.44
7466	11,436.27	11,593.55
7465	4,344.64	1,983.00
7464	0.00	0.00

Dam Crest
EL = 7469.405

Top Spillway
EL = 7469.032

Spillway Floor
EL = 7465.012

Water Surface
EL = 7468.69

Eagle Lake
0.384 Acres
Dam Crest: 7469.405
Spillway Crest: 7469.032

0 5 10 20 Feet

Rainbow Falls Mountain Trout

Eagle Lake

the MappingNetwork

Elevation	Area (Sq ft)	Volume (Cu Ft)
7468.757	103,719.94	446,728.38
7468	90,446.62	372,613.63
7467	84,549.69	285,755.39
7466	80,212.35	203,387.86
7465	72,856.32	126,416.13
7464	56,068.83	61,090.32
7463	24,655.79	14,629.80
7462	0.00	0.00

Dam Crest
EL = 7468.757

Spillway Floor
EL = 7464.556

Top Spillway
EL = 7468.566

Water Surface
EL = 7468.12

Dam Crest
EL = 7468.771

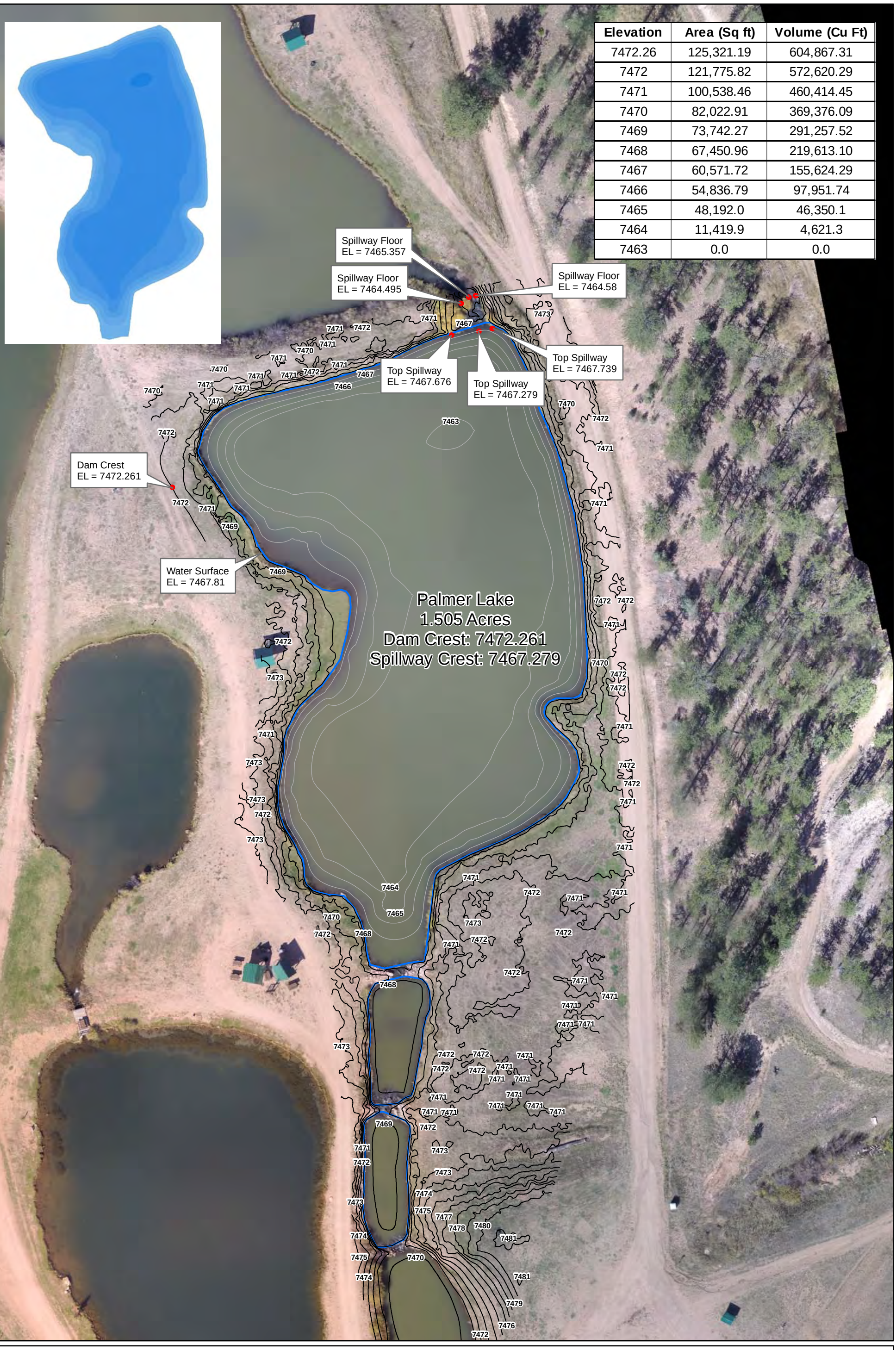
Elk Lake
2.1 Acres
Dam Crest: 7468.757
Spillway Crest: 7468.566

0 15 30 60 Feet

Rainbow Falls Mountain Trout

Elk Lake

the MappingNetwork



Elevation	Area (Sq ft)	Volume (Cu Ft)
7472.26	125,321.19	604,867.31
7472	121,775.82	572,620.29
7471	100,538.46	460,414.45
7470	82,022.91	369,376.09
7469	73,742.27	291,257.52
7468	67,450.96	219,613.10
7467	60,571.72	155,624.29
7466	54,836.79	97,951.74
7465	48,192.0	46,350.1
7464	11,419.9	4,621.3
7463	0.0	0.0

0 20 40 80 Feet

Rainbow Falls Mountain Trout

Palmer Lake

the MappingNetwork

Elevation	Area (Sq ft)	Volume (Cu Ft)
7473.229	43,889.93	202,934.17
7473	43,233.91	192,961.52
7472	40,402.61	151,041.30
7471	37,346.80	112,182.72
7470	34,458.72	76,293.36
7469	31,207.12	43,271.04
7468	23,903.36	15,322.88
7467	4,347.88	1,251.79
7466	0.0	0.0

Spillway Floor
EL = 7471.043

Top Spillway
EL = 7473.7

Water Surface
EL = 7472.63

Dam Low Point
EL = 7473.522

Dam Low Point
EL = 7473.229

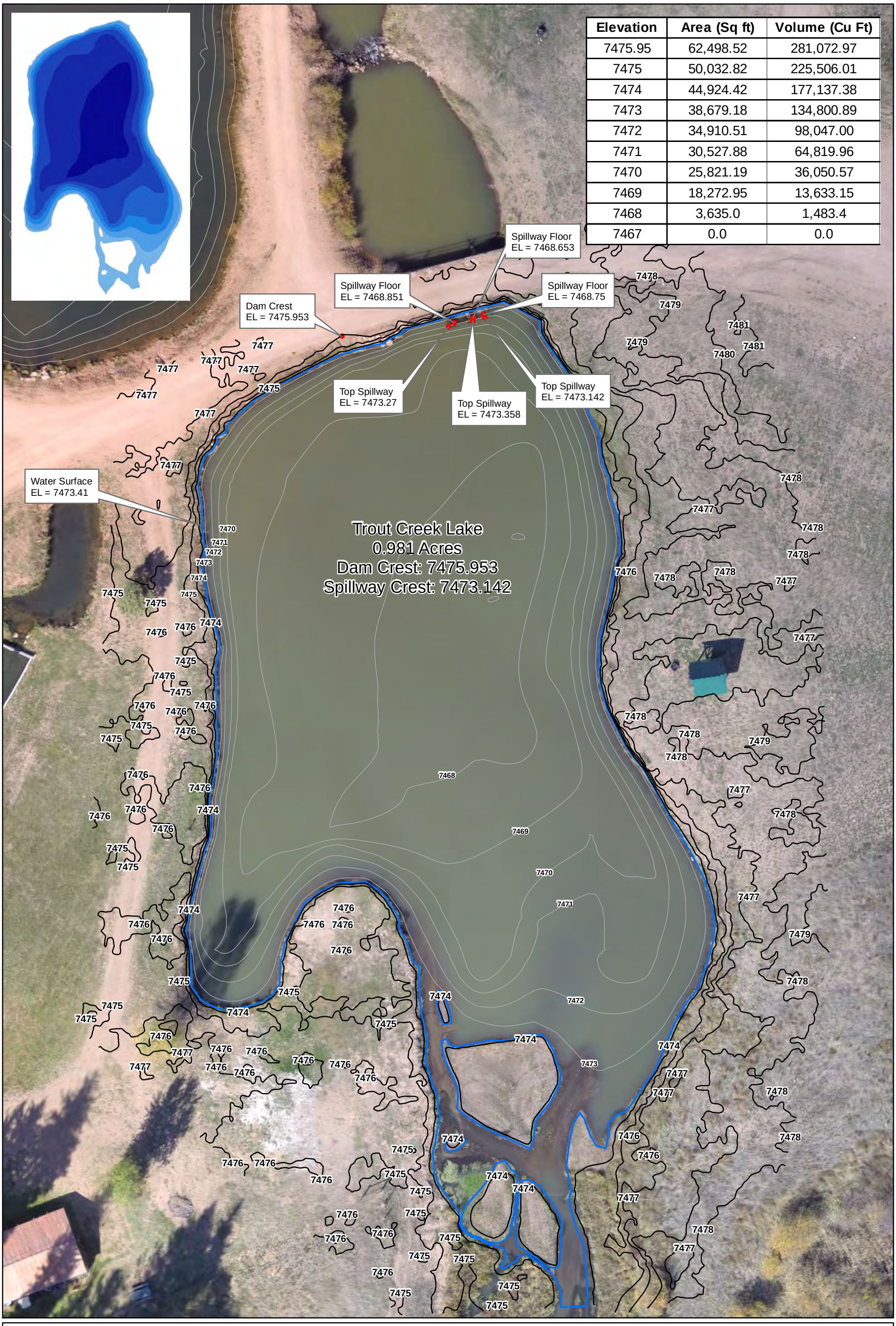
Spring Lake
0.964 Acres
Dam Crest: 7473.229
Spillway Crest: 7473.7

0 10 20 40 Feet

Rainbow Falls Mountain Trout

Spring Lake

the MappingNetwork



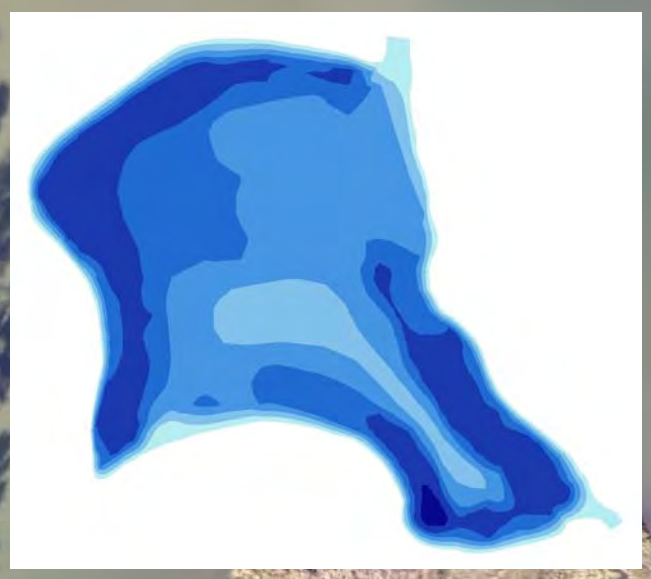
Elevation	Area (Sq ft)	Volume (Cu Ft)
7475.95	62,498.52	281,072.97
7475	50,032.82	225,506.01
7474	44,924.42	177,137.38
7473	38,679.18	134,800.89
7472	34,910.51	98,047.00
7471	30,527.88	64,819.96
7470	25,821.19	36,050.57
7469	18,272.95	13,633.15
7468	3,635.0	1,483.4
7467	0.0	0.0

0 10 20 40 Feet

Rainbow Falls Mountain Trout

Trout Creek Lake

the MappingNetwork



Elevation	Area (Sq ft)	Volume (Cu Ft)
7467.06	210,871.81	959,849.61
7467	209,767.43	947,230.55
7466	195,143.07	745,361.34
7465	185,931.34	554,612.98
7464	172,592.52	376,185.01
7463	150,355.71	209,326.72
7462	82,751.35	81,269.71
7461	34,059.65	20,360.10
7460	861.7	499.5
7459	0.0	0.0

Dam Check
EL = 7467.06

Top Spillway
EL = 7465.802

Spillway Floor
EL = 7464.211

Water Surface
EL = 7464.8

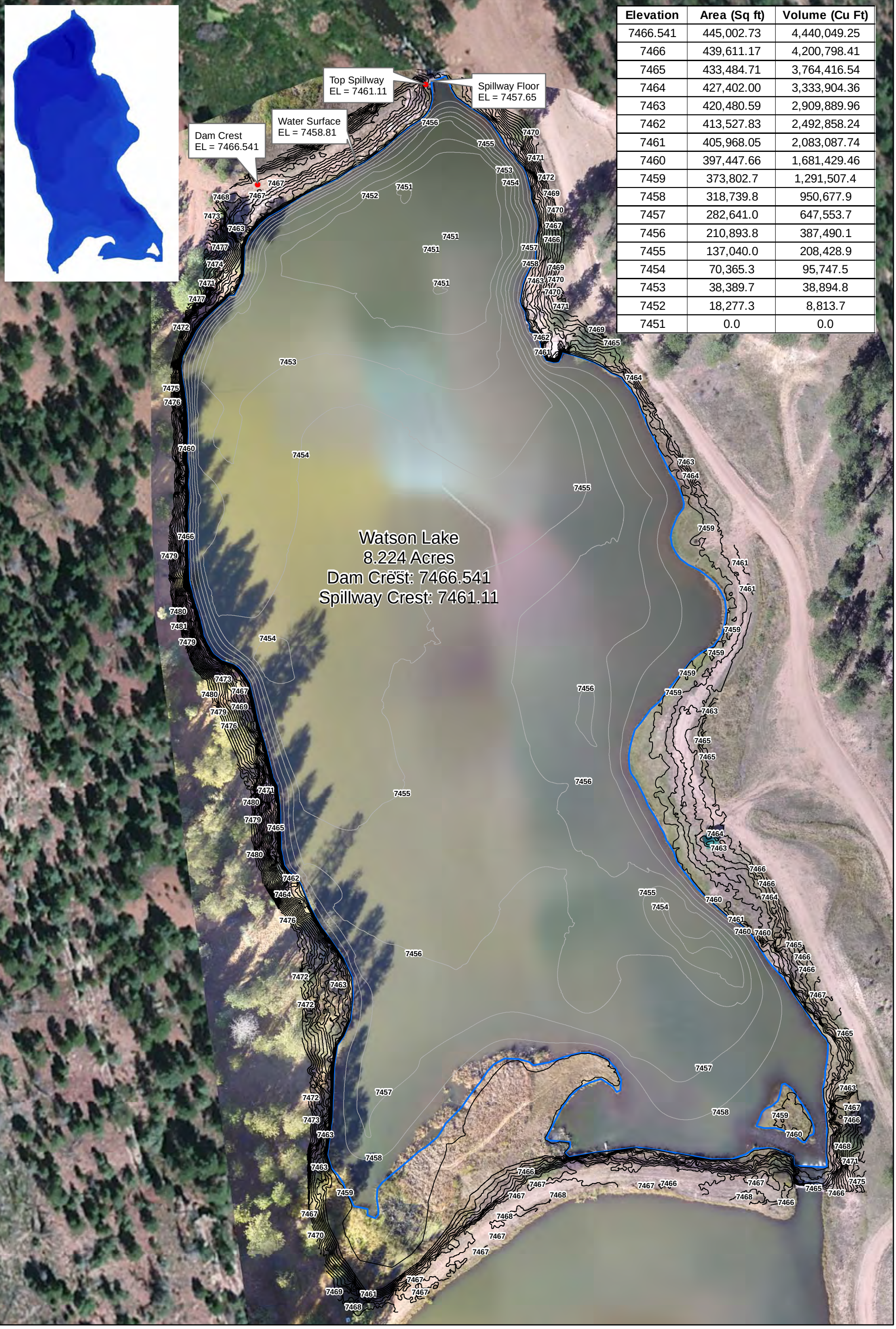
Ute Lake
4.165 Acres
Dam Crest: 7467.06
Spillway Crest: 7465.802

0 20 40 80 Feet

Rainbow Falls Mountain Trout

Ute Lake

the MappingNetwork



Elevation	Area (Sq ft)	Volume (Cu Ft)
7466.541	445,002.73	4,440,049.25
7466	439,611.17	4,200,798.41
7465	433,484.71	3,764,416.54
7464	427,402.00	3,333,904.36
7463	420,480.59	2,909,889.96
7462	413,527.83	2,492,858.24
7461	405,968.05	2,083,087.74
7460	397,447.66	1,681,429.46
7459	373,802.7	1,291,507.4
7458	318,739.8	950,677.9
7457	282,641.0	647,553.7
7456	210,893.8	387,490.1
7455	137,040.0	208,428.9
7454	70,365.3	95,747.5
7453	38,389.7	38,894.8
7452	18,277.3	8,813.7
7451	0.0	0.0

0 25 50 100 Feet

Rainbow Falls Mountain Trout

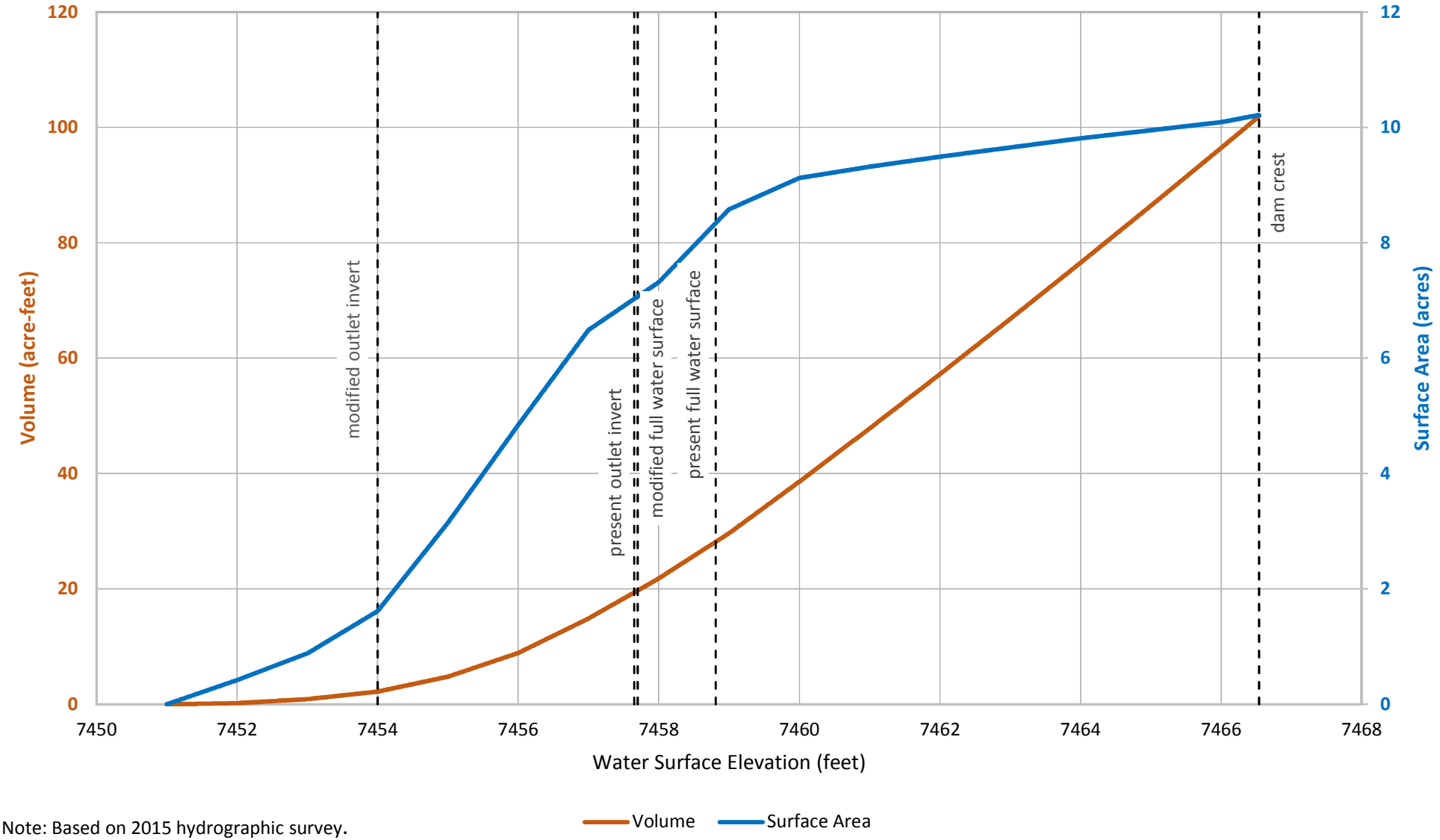
Watson Lake

the MappingNetwork

Appendix C

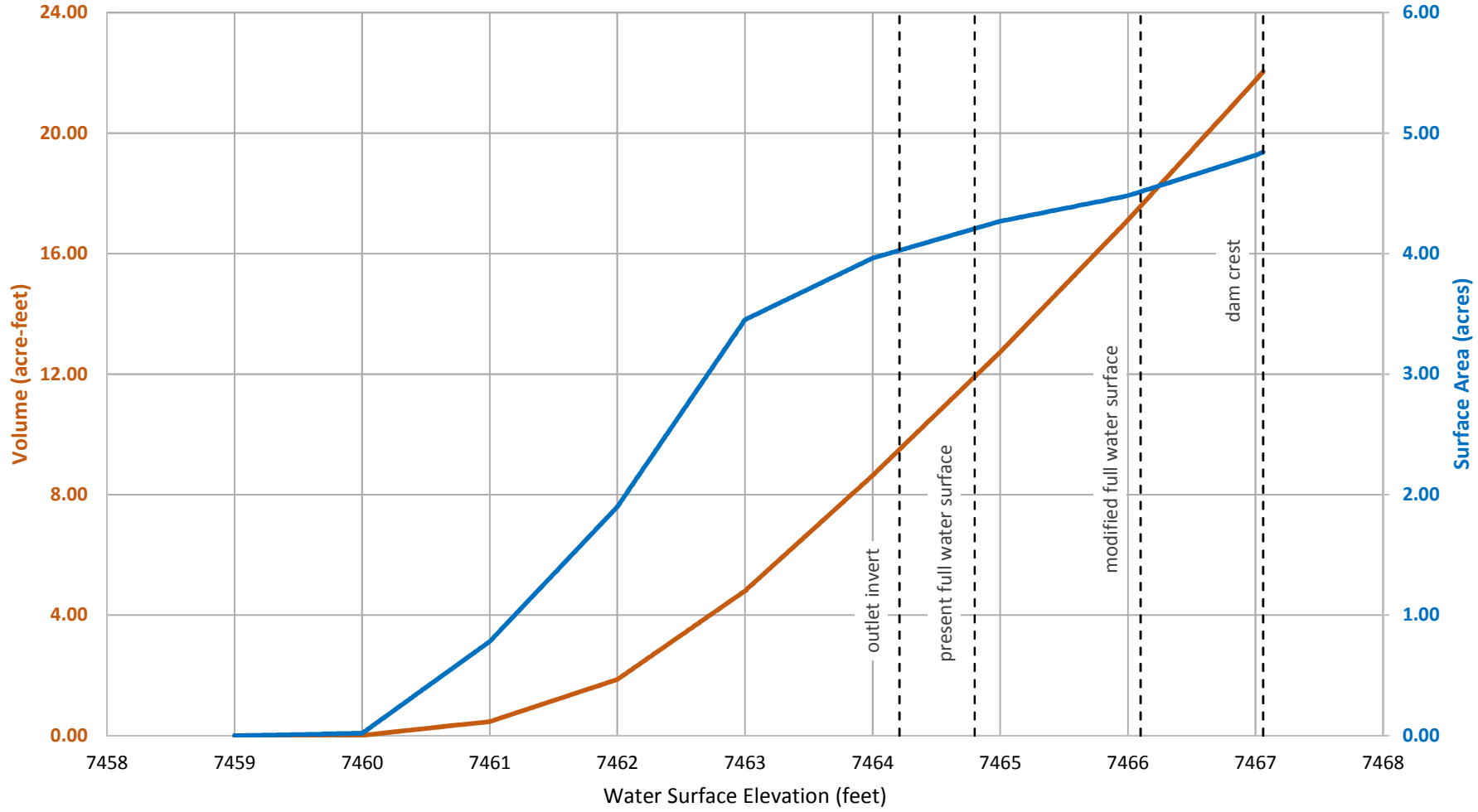
Elevation-Area-Capacity Curves
Rainbow Falls Lakes

Appendix C-1
Elevation - Area - Capacity
Watson Lake
Rainbow Falls Mountain Trout Inc.



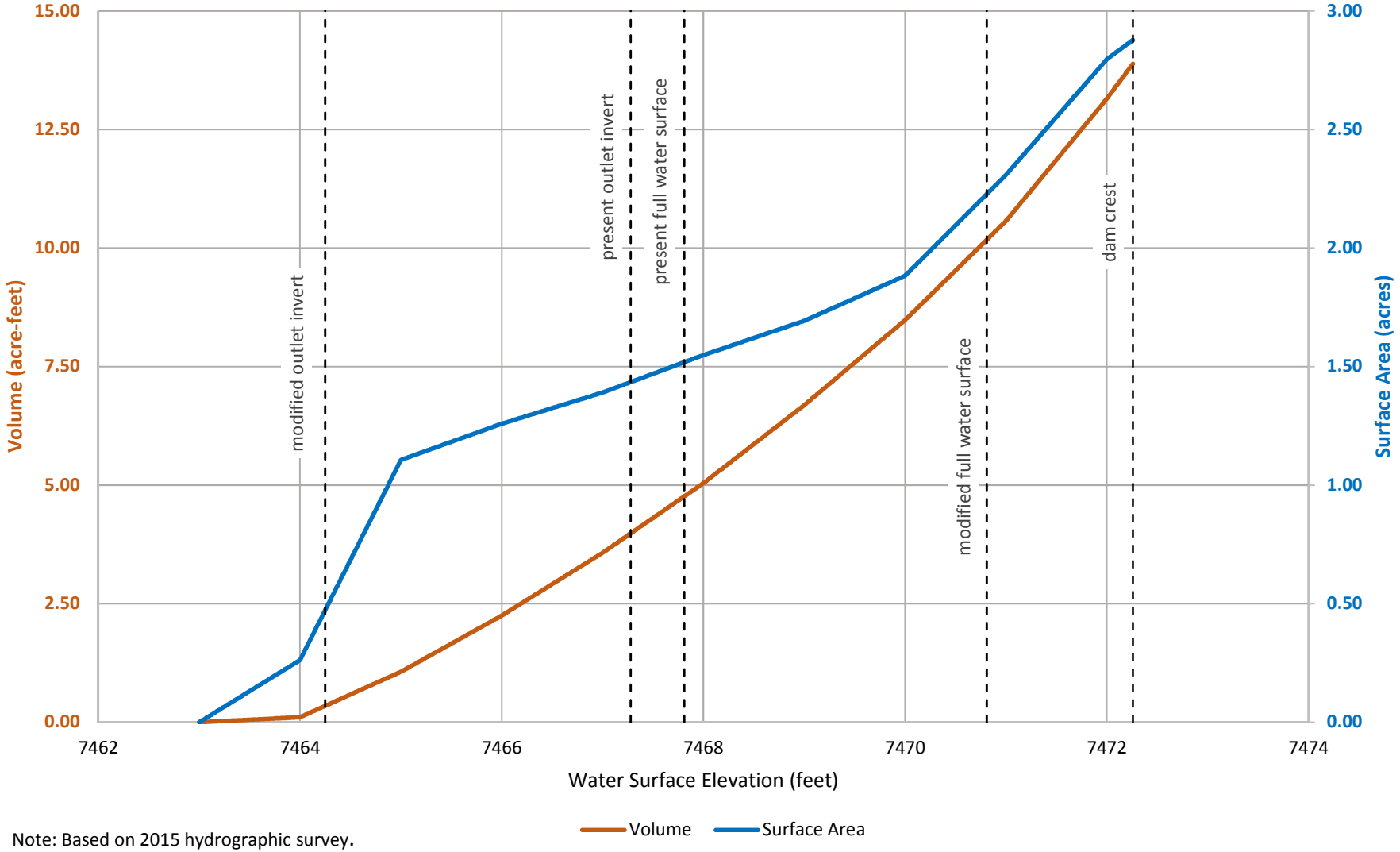
Note: Based on 2015 hydrographic survey.

Appendix C-2
Elevation - Area - Capacity
Ute Lake
Rainbow Falls Mountain Trout Inc.



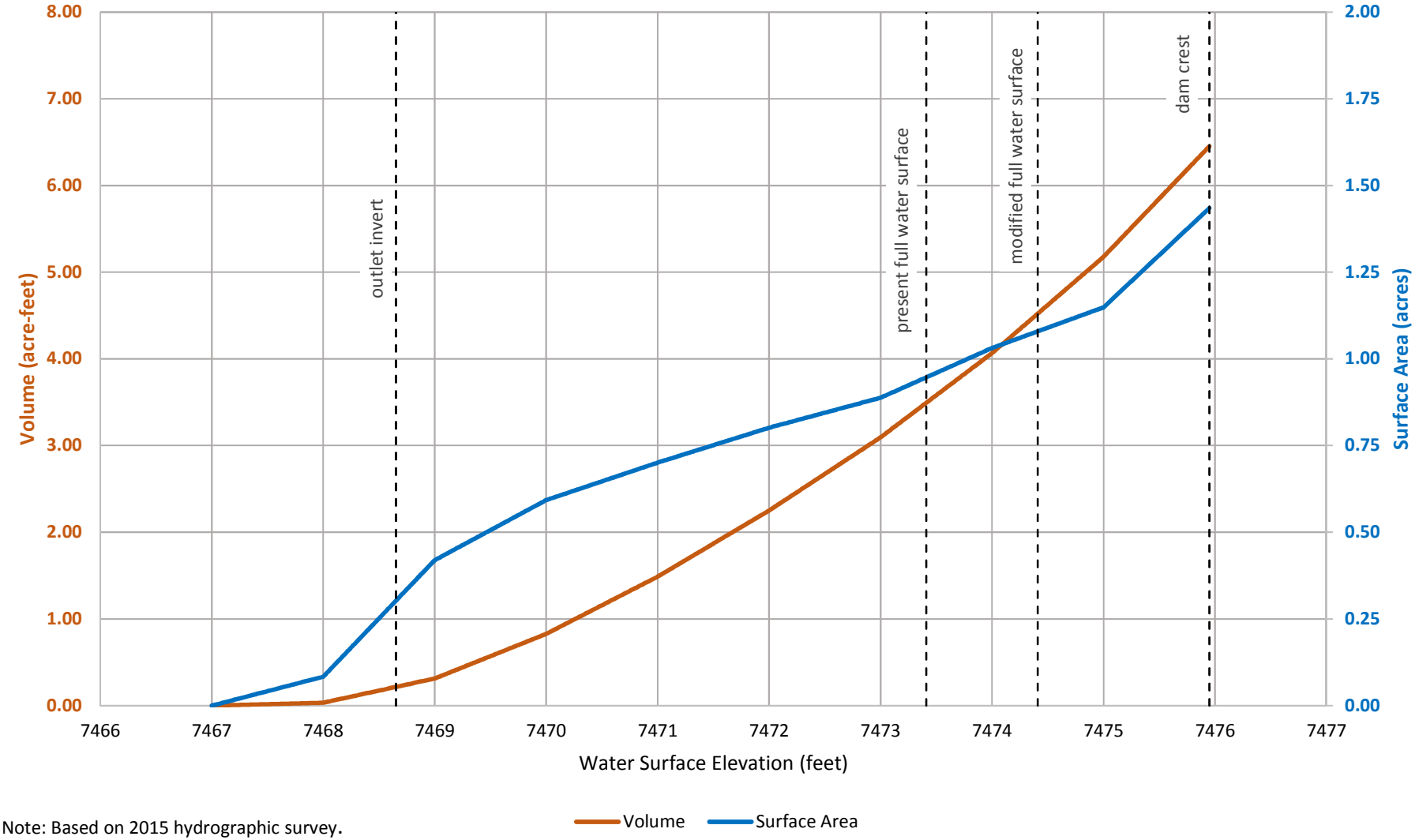
Note: Based on 2015 hydrographic survey.

Appendix C-3
Elevation - Area - Capacity
Palmer Lake
Rainbow Falls Mountain Trout Inc.



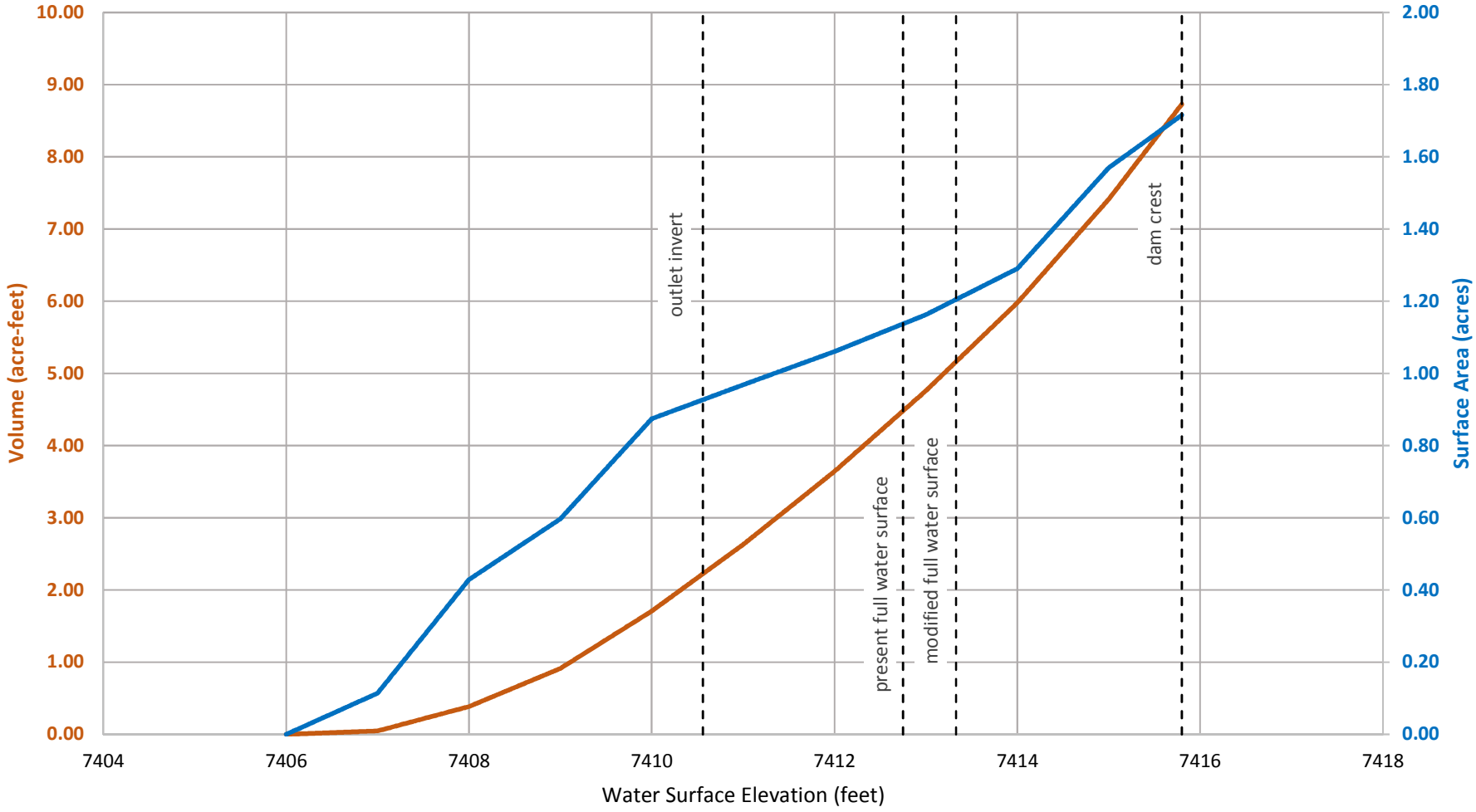
Note: Based on 2015 hydrographic survey.

Appendix C-4
Elevation - Area - Capacity
Trout Creek Lake
Rainbow Falls Mountain Trout Inc.



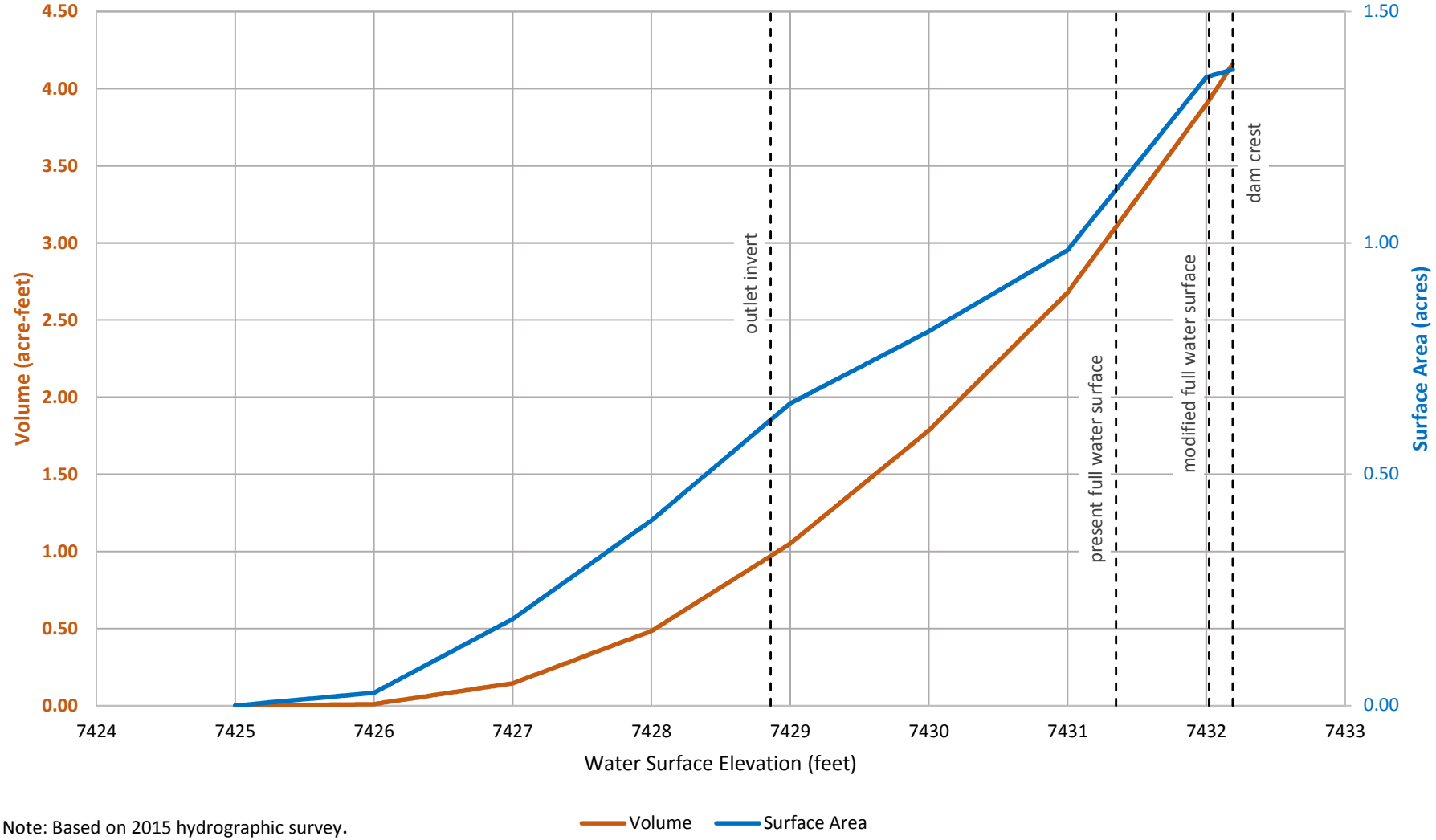
Note: Based on 2015 hydrographic survey.

Appendix C-5
Elevation - Area - Capacity
Cougar Lake
Rainbow Falls Mountain Trout Inc.



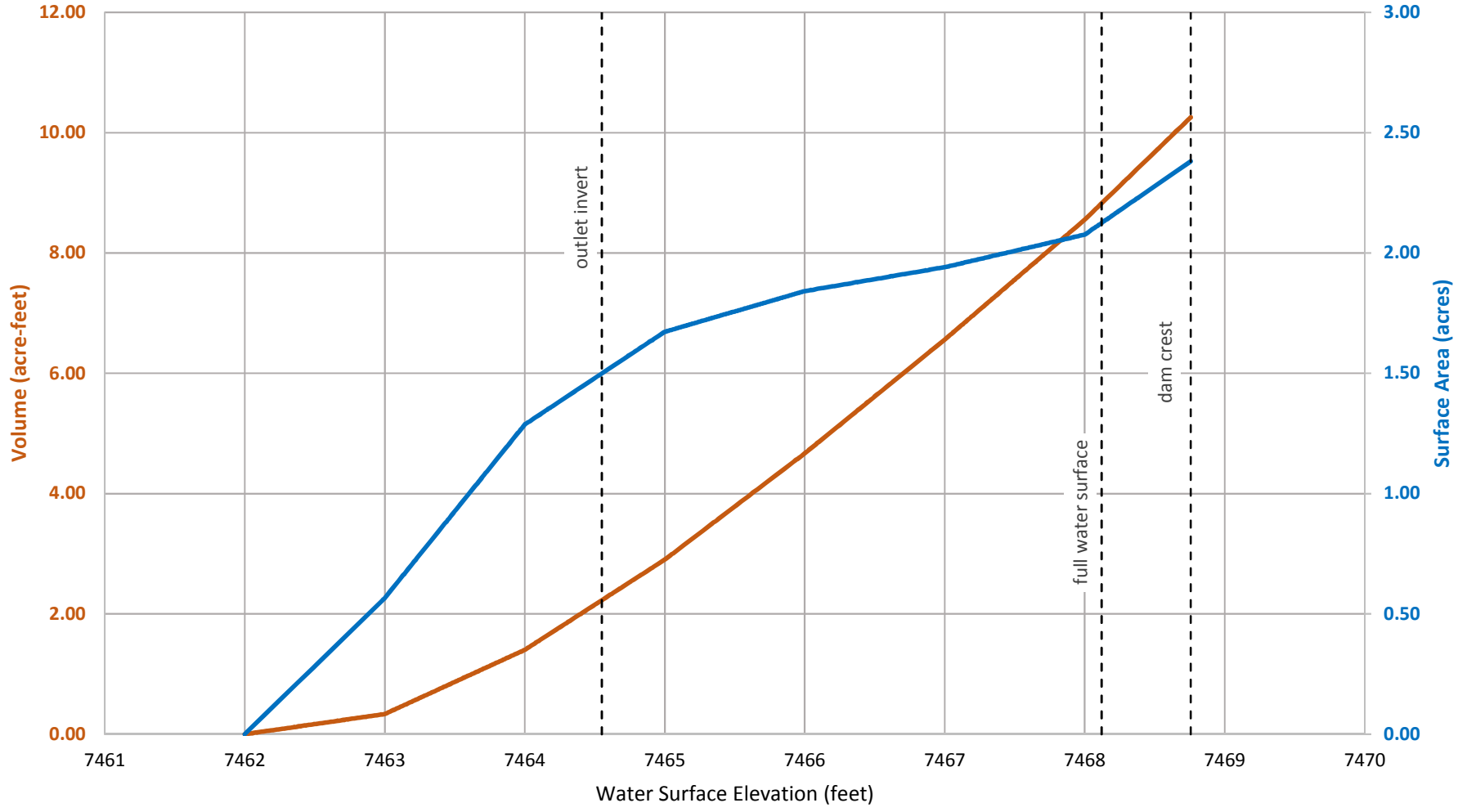
Note: Based on 2015 hydrographic survey.

Appendix C-6
Elevation - Area - Capacity
Bear Lake
Rainbow Falls Mountain Trout Inc.



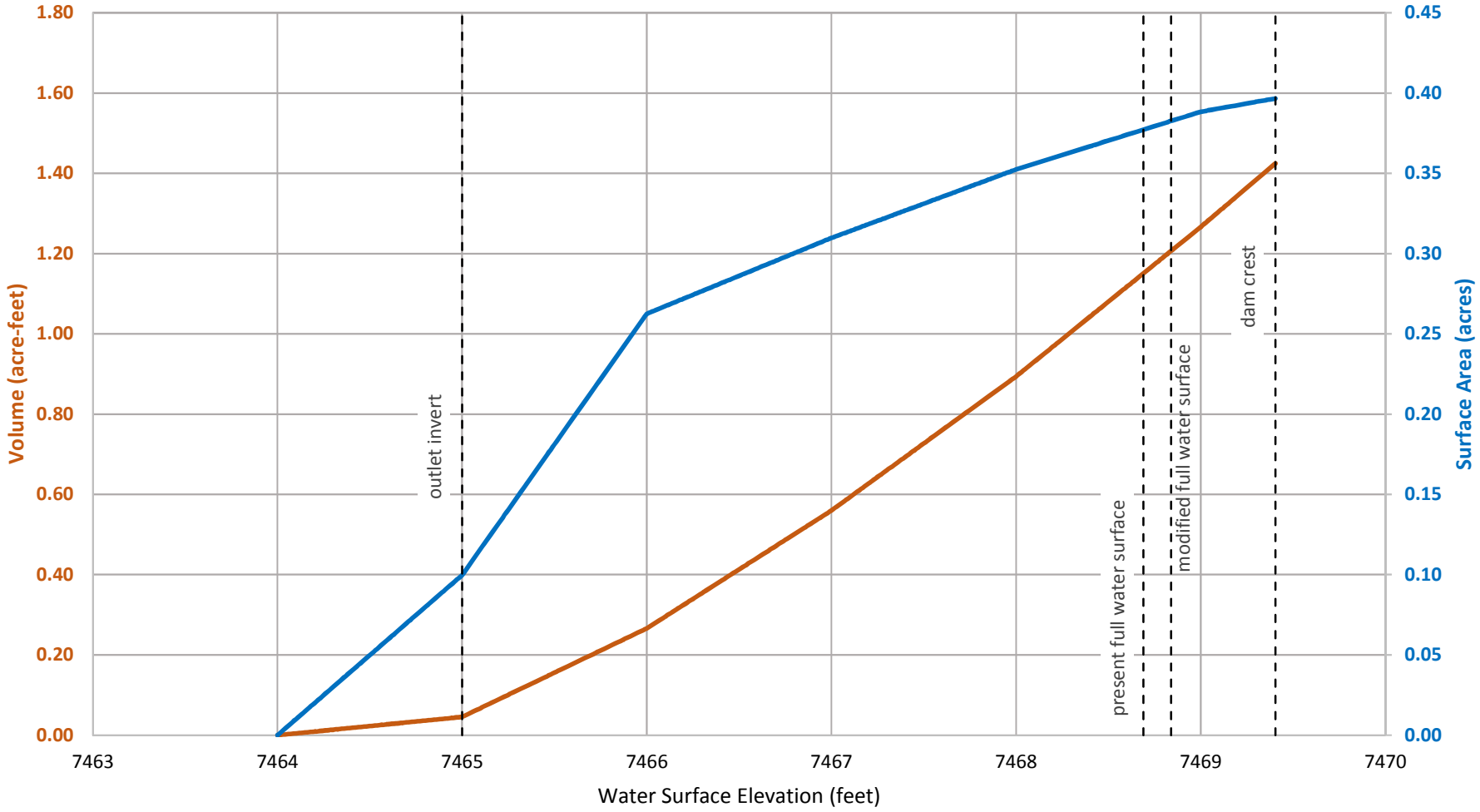
Note: Based on 2015 hydrographic survey.

Appendix C-7
Elevation - Area - Capacity
Elk Lake
Rainbow Falls Mountain Trout Inc.



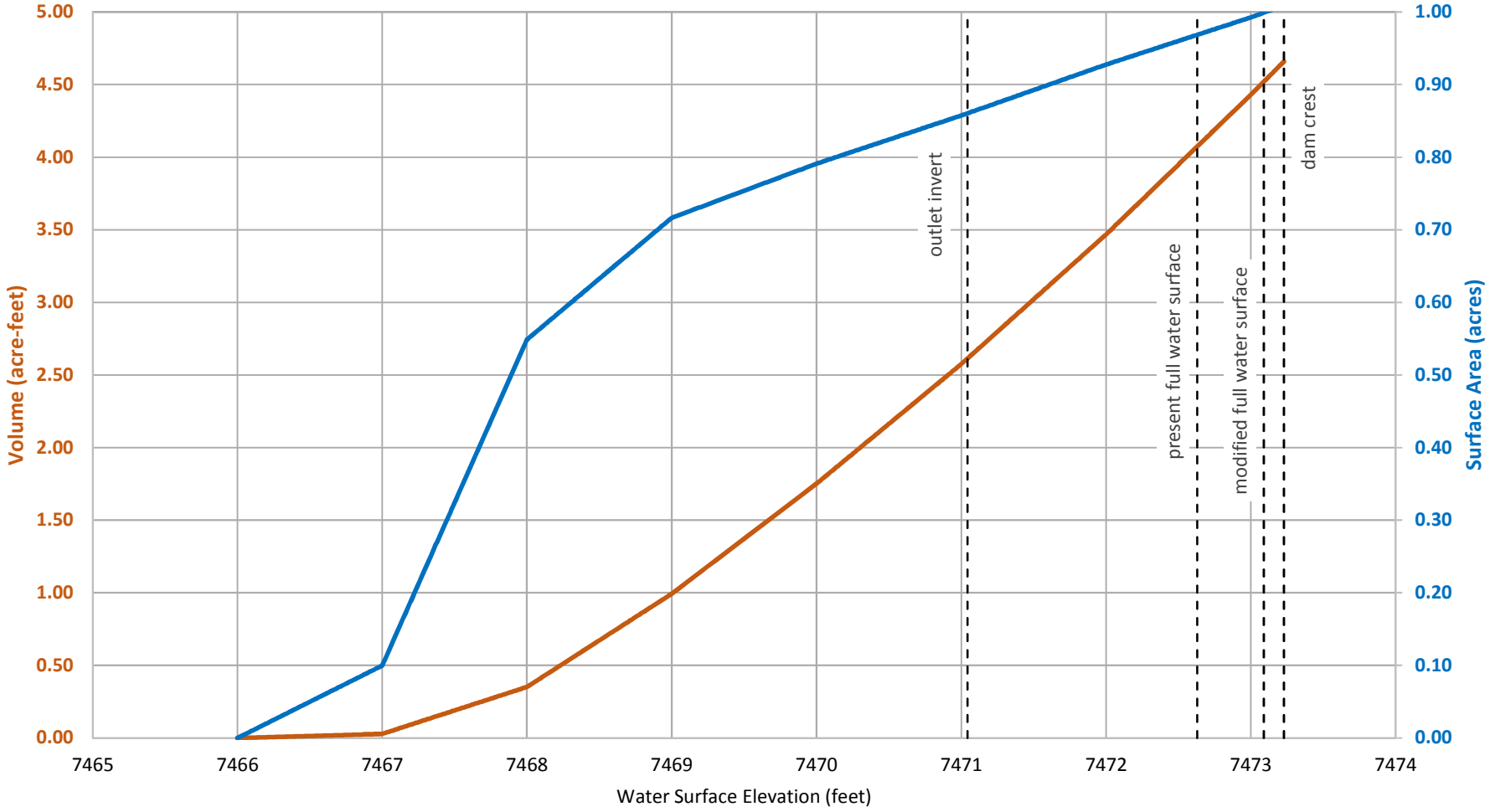
Note: Based on 2015 hydrographic survey.

Appendix C-8
Elevation - Area - Capacity
Eagle Lake
Rainbow Falls Mountain Trout Inc.



Note: Based on 2015 hydrographic survey.

Appendix C-9
Elevation - Area - Capacity
Spring Lake
Rainbow Falls Mountain Trout Inc.



Note: Based on 2015 hydrographic survey.

Appendix D

Elevation-Area-Capacity Tables
Rainbow Falls Lakes

Appendix D
Elevation - Area - Capacity Tables
Rainbow Falls Lakes
Rainbow Falls Mountain Trout Inc.

SPRING LAKE

Elevation (ft)	Area (ac)	Volume (AF)	Note
7473.23	1.01	4.66	
7473.09	1.00	4.52	modified full water surface
7473.00	0.99	4.43	
7472.63	0.97	4.07	present full water surface
7472.00	0.93	3.47	
7471.04	0.86	2.61	present outlet invert
7471.00	0.86	2.58	
7470.00	0.79	1.75	
7469.00	0.72	0.99	
7468.00	0.55	0.35	
7467.00	0.10	0.03	
7466.00	0.00	0.00	

TROUT CREEK LAKE

Elevation (ft)	Area (ac)	Volume (AF)	Note
7475.95	1.43	6.45	
7475.00	1.15	5.18	
7474.41	1.08	4.52	modified full water surface
7474.00	1.03	4.07	
7473.41	0.95	3.49	present full water surface
7473.00	0.89	3.09	
7472.00	0.80	2.25	
7471.00	0.70	1.49	
7470.00	0.59	0.83	
7469.00	0.42	0.31	
7468.65	0.30	0.22	present outlet invert
7468.00	0.08	0.03	
7467.00	0.00	0.00	

EAGLE LAKE

Elevation (ft)	Area (ac)	Volume (AF)	Note
7469.41	0.40	1.42	
7469.00	0.39	1.27	
7468.84	0.38	1.21	modified full water surface
7468.69	0.38	1.15	present full water surface
7468.00	0.35	0.89	
7467.00	0.31	0.56	
7466.00	0.26	0.27	
7465.00	0.10	0.05	present outlet invert
7464.00	0.00	0.00	

Appendix D
Elevation - Area - Capacity Tables
Rainbow Falls Lakes
Rainbow Falls Mountain Trout Inc.

PALMER LAKE

Elevation (ft)	Area (ac)	Volume (AF)	Note
7472.26	2.88	13.89	
7472.00	2.80	13.15	
7471.00	2.31	10.57	
7470.81	2.23	10.17	modified full water surface
7470.00	1.88	8.48	
7469.00	1.69	6.69	
7468.00	1.55	5.04	
7467.81	1.52	4.76	present full water surface
7467.28	1.43	3.98	present outlet invert
7467.00	1.39	3.57	
7466.00	1.26	2.25	
7465.00	1.11	1.06	
7464.25	0.47	0.35	modified outlet invert
7464.00	0.26	0.11	
7463.00	0.00	0.00	

ELK LAKE

Elevation (ft)	Area (ac)	Volume (AF)	Note
7468.76	2.38	10.26	
7468.12	2.12	8.82	present full water surface
7468.00	2.08	8.55	
7467.00	1.94	6.56	
7466.00	1.84	4.67	
7465.00	1.67	2.90	
7464.56	1.50	2.24	present outlet invert
7464.00	1.29	1.40	
7463.00	0.57	0.34	
7462.00	0.00	0.00	

UTE LAKE

Elevation (ft)	Area (ac)	Volume (AF)	Note
7467.06	4.84	22.04	
7467.00	4.82	21.75	
7466.10	4.51	17.57	modified full water surface
7466.00	4.48	17.11	
7465.00	4.27	12.73	
7464.80	4.21	11.91	present full water surface
7464.21	4.03	9.50	present outlet invert
7464.00	3.96	8.64	
7463.00	3.45	4.81	
7462.00	1.90	1.87	
7461.00	0.78	0.47	
7460.00	0.02	0.01	
7459.00	0.00	0.00	

Appendix D
Elevation - Area - Capacity Tables
Rainbow Falls Lakes
Rainbow Falls Mountain Trout Inc.

WATSON LAKE

Elevation (ft)	Area (ac)	Volume (AF)	Note
7466.54	10.22	101.93	
7466.00	10.09	96.44	
7465.00	9.95	86.42	
7464.00	9.81	76.54	
7463.00	9.65	66.80	
7462.00	9.49	57.23	
7461.00	9.32	47.82	
7460.00	9.12	38.60	
7459.00	8.58	29.65	
7458.81	8.34	28.16	present full water surface
7458.00	7.32	21.82	
7457.70	7.07	19.74	modified full water surface
7457.65	7.03	19.39	present outlet invert
7457.00	6.49	14.87	
7456.00	4.84	8.90	
7455.00	3.15	4.78	
7454.00	1.62	2.20	modified outlet invert
7453.00	0.88	0.89	
7452.00	0.42	0.20	
7451.00	0.00	0.00	

BEAR LAKE

Elevation (ft)	Area (ac)	Volume (AF)	Note
7432.19	1.37	4.16	
7432.02	1.36	3.92	modified full water surface
7432.00	1.36	3.90	
7431.35	1.12	3.11	present full water surface
7431.00	0.98	2.68	
7430.00	0.81	1.78	
7429.00	0.65	1.05	
7428.86	0.62	0.97	present outlet invert
7428.00	0.40	0.48	
7427.00	0.19	0.14	
7426.00	0.03	0.01	
7425.00	0.00	0.00	

COUGAR LAKE

Elevation (ft)	Area (ac)	Volume (AF)	Note
7415.80	1.72	8.73	
7415.00	1.57	7.41	
7414.00	1.29	5.98	
7413.33	1.21	5.17	modified full water surface
7413.00	1.16	4.76	
7412.75	1.14	4.48	present full water surface
7412.00	1.06	3.64	
7411.00	0.97	2.63	
7410.57	0.93	2.23	present outlet invert
7410.00	0.87	1.71	
7409.00	0.60	0.91	
7408.00	0.43	0.39	
7407.00	0.11	0.05	
7406.00	0.00	0.00	

Note
All data from 2015 Hydrographic Survey.

Appendix E

Big Spring Pipeline Well Decree
Case No. W-6138

IN THE WATER COURT IN AND FOR

WATER DIVISION I, STATE OF COLORADO

CASE NO. W-6138

IN THE MATTER OF THE APPLICATION FOR WATER RIGHTS OF ROBERT WATSON IN DOUGLAS COUNTY	FINDINGS AND RULING OF THE REFEREE AND DECREE OF THE WATER COURT

THIS CLAIM, having been filed with the Water Clerk, Water Division I, on June 30, 1972, and the Referee being fully advised in the premises, does hereby find:

All notices required by law of the filing of this application have been fulfilled, and the Referee has jurisdiction of this application.

No statement of opposition to said application has been filed, and the time for filing such statement has expired.

All matters contained in the application having been reviewed, and testimony having been taken at hearing held March 2, 1976, and such corrections made as are indicated by the evidence presented herein, IT IS HEREBY THE RULING OF THE WATER REFEREE:

1. The name and address of the claimant:

   Robert Watson
   Rainbow Falls Park
   Woodland Park, Colorado 80863

2. The name of the structures:

   Big Spring Pipeline Well
   Campground Pump Well
   Cabin Spring Pipeline Well

3. The legal description of the structures:

   Big Spring Pipeline Well is located in the NE¼ of NW¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado, at a point 10 feet South and 1785 feet East of NW Corner of said Section 28.

   Campground Pump Well is located in the SE¼ of SW¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado, at a point 300 feet North and 1565 feet East ofthe SW Corner of said Section 21.

   Cabin Spring Pipeline Well is located in the SW¼ of NE¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado, at a point 2000 feet South and 1750 feet West of the NE Corner of said Section 28.

4. The source of water: Groundwater

5. The date of appropriation:

Big Spring Pipeline Well:	December 31, 1914
Campground Pump Well:	April 15, 1966
Cabin Spring Pipeline Well:	December 31, 1914

6. The amount of water:

Big Spring Pipeline Well:	1.0 cubic feet per second
Campground Pump Well:	0.0401 cubic feet per second
Cabin Spring Pipeline Well:	0.1939 cubic feet per second

7. The use of the water:

Big Spring Pipeline Well, Campground Pump Well and Cabin Spring Pipeline Well: Domestic, commercial, fish culture, recreational and irrigation of 25 acre in the NW¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado.

DATED this 24th day of June, 1976.

Thomas J. Aron Jr.
THOMAS J. ARON, JR.
Water Referee, Division I

THE COURT DOTH FIND: NO PROTEST WAS FILED IN THIS MATTER.

THE FOREGOING RULING IS CONFIRMED AND APPROVED, AND IS HRERBY MADE THE JUDGMENT AND DECREE OF THIS COURT.

Dated: July 14, 1976

Donald A. Carpenter
JUDGE DONALD A. CARPENTER
Water Judge, Division I

Appendix F

Analysis of Consumptive Use of Riparian Vegetation

Coefficients:

Season - Large stand cattails & bulrushes

	Start	End	Description	Coeff. Grn-up	Coeff. Full Cover
Green-up, linear based on %	Last 28F	T30 =11C	Start to Green-up	0.2	1.05
Constant, based on days after full cover	T30 =11C	Last 28F	Full Cover to End		1.05

Source: *Allen, R.G. and Robison, C.W. Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho, University of Idaho, September 2006, revised April 2007.*

Hargreaves REF-ET Calculation Inputs:

The anemometer height is:	2	meters	
The temperature/RH height is:	1.5	meters	
The weather station elevation is:	2097	meters	
The weather station latitude is :	39.99	degrees	
The weather station longitude is:	105.9	degrees	West
The time zone longitude is:	105	degrees	West
The default day/night wind ratio:	2		
The alfalfa reference height is:	0.5	meters	
The grass reference height is:	0.12	meters	
The weather vegetation height is:	0.12	meters	(0 = same as ref crop)
A user-entered grass surface resist. (for the above grass ht.) is: 70 s/m			
The green fetch of the Pan (A) is:	1000	meters	
The indicator for missing data is:	-999		
The alfalfa/grass ref. ratio is:	1.25		

Source: *REF-ET REFERENCE EVAPOTRANSPIRATION CALCULATOR Ver. 3.1 Windows: Computer Program to calculate ASCE Standardized Reference ET as recommended by the 1999-2005 ASCE Task Committee on Standardization of ET and to supplement ASCE Manual 70: EVAPOTRANSPIRATION AND IRRIGATION WATER REQUIREMENTS, M.E. Jensen, R.D. Burman and R.G. Allen, Editors, 1990 and FAO Irrigation and Drainage Paper No. 56: CROP EVAPOTRANSPIRATION: Guidelines for Computing Crop Water Req. R.G. Allen, L.S. Pereira, D. Raes, M. Smith. 1998.*

Average Temperature
Cheesman Reservoir
(Values in °F)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
1949	20.4	28.6	36.7	44.4	52.8	59.9	66.1	65.3	59.5	47.4	45.0	31.8	46.5
1950	30.0	33.6	37.2	45.6	50.1	63.3	64.0	62.3	58.3	56.5	40.2	35.8	48.1
1951	25.5	32.5	35.1	41.7	53.3	57.7	69.3	66.1	59.7	46.9	35.6	30.3	46.1
1952	31.7	30.4	31.8	44.4	52.3	66.2	67.2	65.0	60.5	50.4	30.8	28.8	46.6
1953	34.9	30.1	39.6	40.3	48.7	64.0	68.5	65.1	61.1	49.2	40.9	29.0	47.6
1954	33.9	39.9	34.0	50.2	53.2	65.4	69.4	66.1	60.9	49.9	40.6	32.1	49.6
1955	26.0	23.7	34.8	45.0	53.4	59.7	68.5	66.1	58.9	48.7	36.0	36.0	46.4
1956	32.1	25.4	36.3	42.1	55.8	64.9	64.7	61.3	58.8	49.4	33.1	30.8	46.2
1957	27.1	36.9	36.5	39.5	48.8	60.0	66.8	65.8	56.0	48.4	33.0	34.9	46.1
1958	27.4	33.8	28.4	39.1	54.3	63.2	65.3	66.0	60.3	50.2	39.4	35.1	46.9
1959	28.5	29.2	33.6	41.9	51.7	62.8	65.2	66.3	56.4	45.3	37.1	31.9	45.8
1960	25.4	20.2	34.8	44.5	50.4	62.0	65.1	66.5	60.3	47.0	39.4	28.5	45.3
1961	25.8	30.0	36.0	41.2	53.4	60.9	65.2	65.1	52.9	47.0	34.1	26.0	44.8
1962	19.9	30.1	30.6	44.9	52.2	58.7	65.2	65.5	59.0	51.2	40.2	32.2	45.8
1963	21.9	33.9	33.6	45.8	54.6	61.3	68.2	63.7	60.8	53.1	40.0	28.5	47.1
1964	25.8	21.7	29.6	42.2	52.1	58.7	67.7	62.9	57.5	48.1	36.3	31.5	44.5
1965	32.0	28.0	25.7	44.3	50.2	58.4	65.3	61.3	51.6	48.8	40.7	33.4	45.0
1966	26.1	23.7	37.8	42.5	53.9	60.7	69.7	64.4	59.7	49.0	41.3	30.7	46.6
1967	32.0	31.6	42.5	45.9	50.3	58.6	66.4	61.9	57.7	50.4	38.2	25.5	46.8
1968	29.2	30.9	34.8	39.0	49.4	62.6	64.3	62.6	56.4	49.8	34.5	30.8	45.4
1969	34.4	32.5	27.5	46.5	53.5	56.1	66.6	67.2	59.6	40.2	35.9	31.2	45.9
1970	28.0	34.7	30.6	39.2	52.2	58.9	65.7	66.6	55.7	43.0	37.9	33.0	45.5
1971	31.5	27.3	34.6	41.9	48.4	60.7	63.5	63.8	53.7	46.2	37.1	29.2	44.8
1972	29.1	31.9	40.2	44.3	50.5	61.4	64.4	63.2	56.5	48.7	27.8	24.6	45.2
1973	22.9	27.3	32.3	36.3	48.5	58.1	62.6	63.2	54.7	47.9	38.0	28.5	43.4
1974	24.2	27.9	39.0	40.8	53.3	59.9	64.0	60.7	52.5	47.0	34.3	24.7	44.0
1975	25.8	25.3	33.5	38.4	46.6	56.4	63.1	61.1	53.2	47.2	31.9	30.4	42.7
1976	26.5	32.7	31.9	41.1	47.8	57.3	63.4	62.1	55.4	43.4	33.8	29.2	43.7
1977	24.1	29.1	29.8	41.8	51.8	64.7	67.0	64.8	59.9	49.3	38.7	34.5	46.3
1978	27.7	29.7	38.1	46.4	49.6	61.2	64.2	59.5	53.9	42.1	31.3	17.2	43.4
1979	12.8	24.4	32.7	37.8	45.9	58.2	65.8	62.0	59.0	49.1	29.6	30.0	42.3
1980	28.0	31.8	32.0	38.6	48.0	62.6	67.0	64.3	57.9	45.1	35.7	36.8	45.6
1981	33.3	32.7	34.8	48.6	51.4	64.8	66.8	63.3	59.9	48.0	39.7	32.0	47.9
1982	29.0	27.4	38.3	42.6	49.6	57.6	66.6	66.6	57.4	45.2	36.7	30.9	45.7
1983	31.7	32.2	34.2	36.3	46.1	56.7	67.4	67.6	60.3	48.9	35.9	21.0	44.9
1984	22.5	28.2	32.3	38.9	54.4	59.7	67.0	64.0	56.7	40.9	37.3	32.6	44.5
1985	22.5	23.4	34.5	44.3	51.1	60.9	65.0	64.1	53.9	45.2	35.6	27.0	44.0
1986	35.7	31.3	40.3	44.4	49.2	61.0	63.4	62.7	54.6	44.5	35.9	27.3	45.9
1987	24.6	29.1	31.5	43.2	50.9	60.9	64.7	63.1	54.9	46.6	34.8	25.0	44.1
1988	19.9	29.1	31.7	42.4	50.7	62.5	64.8	64.7	54.5	47.7	35.2	25.2	44.0
1989	24.7	21.2	37.7	43.8	52.0	57.0	66.3	62.0	55.4	44.1	37.2	22.1	43.6
1990	27.1	25.9	33.2	42.2	47.9	62.5	62.3	60.3	58.1	43.8	35.5	22.6	43.4
1991	24.3	31.4	36.7	42.0	51.8	61.1	63.7	62.5	55.2	44.9	30.9	27.7	44.3
1992	25.7	30.2	35.8	45.6	52.3	57.1	61.6	58.9	54.5	46.5	26.6	24.5	43.3
1993	24.7	24.9	34.7	39.0	48.5	56.9	62.5	59.2	50.2	39.2	28.2	24.6	41.1
1994	25.6	23.6	33.9	37.3	50.6	61.0	61.4	62.1	52.3	40.8	30.2	26.0	42.1
1995	21.9	29.0	32.0	33.5	42.0	52.8	57.8	61.3	50.5	43.6	37.7	28.9	40.9
1996	24.4	29.9	30.9	41.5	53.5	59.8	64.7	61.6	51.1	43.7	33.5	27.6	43.5
1997	22.4	23.3	33.1	33.9	47.7	57.5	62.0	59.5	55.1	41.7	26.8	18.0	40.1
1998	23.3	23.8	31.7	41.0	55.5	61.0	63.6	59.6	56.8	46.3	38.9	26.7	44.0
1999	31.5	32.8	36.8	35.5	46.0	55.6	64.1	59.5	51.0	42.6	36.8	24.1	43.0
2000	27.0	31.1	32.1	40.8	50.4	57.7	63.1	62.3	52.5	41.9	23.1	22.2	42.0
2001	20.3	25.4	31.0	40.3	47.5	59.0	63.9	59.4	52.8	42.5	32.8	23.5	41.5
2002	20.8	20.9	27.2	40.9	46.6	64.4	70.6	68.0	59.4	44.5	35.8	30.6	44.2
2003	34.5	27.6	36.0	45.9	53.8	60.4	72.5	68.3	57.1	52.5	36.3	31.8	48.0
2004	29.6	26.1	43.0	43.7	54.3	60.1	65.2	62.9	57.8	48.1	35.7	31.3	46.5
2005	34.2	32.7	34.3	40.5	51.7	60.6	70.3	63.9	60.4	49.1	39.6	27.7	47.1
2006	33.2	28.9	36.9	46.9	55.6	65.5	68.9	65.6	54.0	45.9	39.2	29.1	47.5
2007	21.1	30.2	38.9	41.9	53.2	62.7	69.1	68.5	60.6	50.3	40.3	25.9	46.9
2008	23.1	28.9	34.8	40.8	50.5	61.9	69.4	66.0	57.5	48.5	40.2	28.3	45.8
2009	31.0	35.1	39.2	40.9	54.8	60.0	65.9	65.0	57.1	40.1	39.5	22.8	45.9
Average	26.9	28.9	34.4	41.9	50.9	60.4	65.6	63.6	56.5	46.6	35.8	28.5	45.0

Source:

High Plains Regional Climate Center Archive of National Weather Service Surface Observations.

Monthly Precipitation
Cheesman Reservoir
(Values in Inches)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1949	0.52	0.36	1.21	2.28	3.03	2.82	3.92	0.72	0.10	0.73	0.04	0.10	15.83
1950	0.88	0.85	0.58	1.83	1.95	1.57	3.45	0.91	1.38	0.16	0.70	0.04	14.30
1951	0.81	0.70	1.34	1.16	1.53	1.89	2.43	2.78	0.56	0.81	0.58	0.75	15.34
1952	0.02	0.33	0.93	2.87	2.91	0.00	1.67	2.81	0.05	0.00	0.87	0.40	12.86
1953	0.38	0.68	0.92	2.44	2.05	1.10	3.38	2.13	0.00	0.39	0.38	0.72	14.57
1954	0.25	0.64	0.80	0.41	1.95	0.36	3.90	1.77	1.61	0.19	0.76	0.45	13.09
1955	0.27	0.79	1.34	0.65	3.94	0.71	2.24	5.76	1.16	0.17	0.35	0.25	17.63
1956	0.36	0.46	1.03	1.66	1.89	0.37	1.86	1.90	0.00	0.28	0.91	0.60	11.32
1957	0.96	0.57	0.84	3.03	5.00	1.81	3.38	1.58	1.00	1.69	1.28	0.27	21.41
1958	0.48	0.11	1.59	1.30	2.93	0.64	2.03	1.46	1.39	0.45	0.41	0.43	13.22
1959	0.74	0.50	1.74	1.64	2.06	0.80	1.01	1.89	2.17	2.24	0.55	0.27	15.61
1960	0.53	1.90	0.90	1.47	2.08	0.29	1.86	0.31	1.24	1.92	0.50	0.93	13.93
1961	0.06	0.92	0.95	1.62	1.43	1.90	2.52	4.28	3.67	0.62	1.03	0.32	19.32
1962	1.40	0.57	0.38	1.58	0.53	1.15	2.31	0.43	0.31	0.37	0.72	0.25	10.00
1963	0.36	0.23	0.94	0.00	0.18	1.91	1.85	6.43	2.42	0.78	0.51	0.68	16.29
1964	0.17	1.22	1.61	0.68	1.38	1.90	1.00	1.85	0.61	0.06	1.23	0.33	12.04
1965	0.30	0.99	1.12	1.46	1.02	2.89	4.70	1.64	2.52	0.25	0.21	0.47	17.57
1966	0.59	0.69	0.56	1.47	1.00	2.50	3.68	1.66	1.06	0.77	0.46	0.10	14.54
1967	0.36	0.45	0.23	2.72	2.64	1.42	4.07	2.91	0.95	1.51	0.55	1.00	18.81
1968	0.15	0.95	0.73	1.42	0.60	0.74	3.16	1.61	1.41	2.34	0.95	0.64	14.70
1969	0.13	0.07	1.53	0.77	4.56	2.71	2.24	3.90	0.58	6.09	0.58	1.14	24.30
1970	0.09	0.54	2.64	0.93	1.13	2.03	3.04	3.60	2.32	0.86	1.61	0.04	18.83
1971	0.21	1.00	0.60	1.93	1.21	0.14	5.70	1.91	2.37	1.32	0.25	0.33	16.97
1972	0.74	0.67	1.33	1.15	1.09	1.08	2.37	3.18	1.09	0.86	2.62	1.11	17.29
1973	0.75	0.00	1.32	4.34	5.36	0.74	1.74	0.38	1.31	0.66	0.41	2.98	19.99
1974	0.87	0.77	0.95	2.46	0.15	1.55	3.30	1.54	0.57	1.78	0.50	0.47	14.91
1975	0.61	0.56	1.25	1.56	2.08	1.84	1.85	2.10	0.37	0.88	2.17	0.24	15.51
1976	0.31	0.17	1.10	1.99	2.32	1.58	2.38	2.40	1.89	1.88	0.24	0.30	16.56
1977	0.11	0.56	2.17	1.82	0.29	1.72	3.26	3.83	0.48	0.16	1.55	0.09	16.04
1978	0.15	0.36	1.92	1.10	1.74	1.66	2.28	0.45	0.51	1.27	0.30	1.01	12.75
1979	0.51	0.46	1.64	1.87	3.33	2.42	2.75	1.90	0.66	1.19	1.25	1.17	19.15
1980	0.46	0.29	0.86	3.14	3.23	0.27	2.42	1.60	0.37	0.19	0.86	0.00	13.69
1981	0.07	0.63	1.85	0.32	2.01	2.17	3.36	3.66	0.86	1.33	0.35	0.63	17.24
1982	0.36	0.22	0.44	0.39	3.56	4.43	3.09	4.47	2.92	0.99	0.21	2.53	23.61
1983	0.11	0.69	3.55	1.29	2.55	2.87	2.11	2.23	0.31	0.04	2.48	0.62	18.85
1984	0.22	0.93	1.98	2.07	0.20	1.20	5.06	4.86	0.53	3.84	0.14	0.33	21.36
1985	0.25	0.96	0.88	1.76	1.70	1.09	3.81	1.61	2.39	0.65	0.90	0.79	16.79
1986	0.20	0.60	0.72	2.00	0.77	2.28	2.04	2.81	0.80	1.71	1.14	0.58	15.65
1987	0.64	1.63	1.27	0.52	4.51	2.60	1.04	3.11	0.63	1.44	1.11	1.36	19.86
1988	0.38	0.43	1.53	0.84	2.37	2.71	0.84	3.60	1.12	0.16	0.37	0.54	14.89
1989	0.91	0.87	0.21	1.25	1.50	2.91	1.90	0.97	1.16	0.56	0.31	0.83	13.38
1990	0.21	0.63	4.20	1.92	2.15	0.25	3.48	2.48	3.07	1.56	1.00	0.30	21.25
1991	0.39	0.19	0.62	1.22	2.60	3.09	3.64	3.90	0.24	0.66	2.29	0.11	18.95
1992	0.42	0.12	2.46	0.58	1.04	4.72	2.75	3.39	0.06	1.08	1.13	0.31	18.06
1993	0.23	0.65	0.77	1.35	1.66	1.43	0.68	2.45	1.79	1.72	0.39	0.51	13.63
1994	0.58	0.34	1.04	2.36	2.39	1.87	1.07	4.11	0.98	1.31	0.45	0.44	16.94
1995	0.15	0.93	1.86	3.29	3.15	3.50	2.56	1.98	1.32	0.21	0.27	0.06	19.28
1996	0.94	0.12	0.90	1.64	1.87	1.24	1.91	1.73	2.68	0.41	0.74	0.21	14.39
1997	0.21	0.85	0.75	2.28	1.25	2.15	1.42	5.95	1.01	3.03	1.04	0.50	20.44
1998	0.21	0.00	1.39	1.81	1.27	1.32	4.99	1.65	1.29	0.41	0.55	0.43	15.32
1999	0.28	0.27	0.47	3.62	2.89	1.90	1.09	3.94	0.69	0.72	0.52	0.68	17.07
2000	1.06	0.20	1.68	1.52	1.03	0.78	2.15	4.22	2.46	0.30	0.54	0.33	16.27
2001	0.36	0.61	1.53	1.54	2.00	1.84	1.70	2.27	0.98	0.00	0.54	0.14	13.51
2002	0.50	0.24	0.75	0.00	0.99	0.33	1.37	0.85	1.96	1.43	0.16	0.02	8.60
2003	0.20	0.94	4.06	0.65	0.68	1.47	0.30	2.51	0.18	0.16	0.36	0.44	11.95
2004	0.45	0.93	0.50	3.12	0.81	2.95	2.48	3.03	1.39	0.91	1.72	0.15	18.44
2005	1.34	0.07	1.75	3.11	1.14	0.99	0.70	2.40	1.19	1.13	0.35	0.46	14.63
2006	0.45	0.23	0.73	0.49	0.68	1.04	3.54	4.35	1.74	2.84	0.55	2.61	19.25
2007	1.15	0.37	1.31	1.22	2.64	1.91	2.07	4.58	0.62	0.49	0.28	1.15	17.79
2008	0.62	0.93	1.22	1.28	0.74	0.33	0.45	3.88	1.53	0.65	0.35	0.37	12.35
2009	0.45	0.09	0.57	2.82	1.80	3.05	5.55	0.77	1.87	1.85	0.83	0.56	20.21
Average	0.46	0.57	1.28	1.66	1.94	1.69	2.54	2.61	1.21	1.06	0.76	0.59	16.37

Source:

High Plains Regional Climate Center Archive of National Weather Service Surface Observations.

Historical Consumptive Use of Wetlands
Rainbow Falls
(Values in Inches)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1949	0.00	0.00	0.00	1.29	5.59	6.61	7.56	7.08	5.23	1.35	0.00	0.00	34.70
1950	0.00	0.00	0.00	0.00	0.41	6.91	7.34	6.82	4.87	3.97	0.21	0.00	30.54
1951	0.00	0.00	0.00	0.00	0.00	5.22	8.61	7.09	5.48	2.03	0.00	0.00	28.43
1952	0.00	0.00	0.00	0.39	5.44	8.29	8.05	6.73	5.43	0.72	0.00	0.00	35.05
1953	0.00	0.00	0.00	0.00	2.44	7.86	8.06	6.98	5.58	2.95	0.00	0.00	33.88
1954	0.00	0.00	0.00	0.00	4.69	8.25	8.36	7.33	5.50	1.89	0.00	0.00	36.03
1955	0.00	0.00	0.00	0.00	1.65	7.02	8.67	7.04	5.40	2.93	0.00	0.00	32.71
1956	0.00	0.00	0.00	0.00	2.06	8.32	8.28	6.91	5.78	3.01	0.00	0.00	34.36
1957	0.00	0.00	0.00	0.00	1.52	7.20	7.77	6.81	4.96	2.44	0.00	0.00	30.70
1958	0.00	0.00	0.00	0.00	4.29	7.54	7.79	7.31	5.26	3.37	0.00	0.00	35.57
1959	0.00	0.00	0.00	0.00	3.60	7.75	8.25	7.19	4.99	0.00	0.00	0.00	31.79
1960	0.00	0.00	0.00	0.00	1.26	7.52	7.73	7.42	5.17	1.98	0.00	0.00	31.08
1961	0.00	0.00	0.00	0.00	3.40	7.36	7.97	6.83	3.70	0.00	0.00	0.00	29.25
1962	0.00	0.00	0.00	0.00	0.62	6.54	7.99	7.50	5.19	3.16	0.00	0.00	31.00
1963	0.00	0.00	0.00	0.00	2.66	7.72	8.75	6.57	5.34	3.42	0.00	0.00	34.45
1964	0.00	0.00	0.00	0.00	2.81	7.20	8.73	6.91	5.11	0.72	0.00	0.00	31.48
1965	0.00	0.00	0.00	0.00	0.20	5.91	7.92	6.60	2.74	0.00	0.00	0.00	23.38
1966	0.00	0.00	0.00	0.00	2.69	7.21	8.45	6.77	5.14	1.86	0.00	0.00	32.11
1967	0.00	0.00	0.00	0.00	2.08	6.69	7.75	6.51	4.95	1.97	0.00	0.00	29.95
1968	0.00	0.00	0.00	0.00	1.38	7.85	7.77	6.39	5.11	1.05	0.00	0.00	29.55
1969	0.00	0.00	0.00	0.04	5.17	5.94	7.70	7.12	4.90	0.50	0.00	0.00	31.36
1970	0.00	0.00	0.00	0.00	2.02	6.83	7.81	6.97	4.16	0.00	0.00	0.00	27.79
1971	0.00	0.00	0.00	0.00	0.63	7.04	7.34	6.84	3.18	0.00	0.00	0.00	25.03
1972	0.00	0.00	0.00	0.00	0.80	7.12	7.89	6.80	4.75	2.59	0.00	0.00	29.96
1973	0.00	0.00	0.00	0.00	0.00	1.60	7.49	7.15	4.47	0.00	0.00	0.00	20.71
1974	0.00	0.00	0.00	0.00	0.00	4.46	8.39	7.02	4.62	0.00	0.00	0.00	24.50
1975	0.00	0.00	0.00	0.00	0.00	3.22	8.21	7.26	3.83	0.00	0.00	0.00	22.52
1976	0.00	0.00	0.00	0.00	0.00	1.63	8.39	6.98	4.77	0.88	0.00	0.00	22.65
1977	0.00	0.00	0.00	0.00	0.34	7.04	8.03	6.68	5.34	1.34	0.00	0.00	28.76
1978	0.00	0.00	0.00	0.00	3.26	7.12	7.66	6.48	3.67	0.00	0.00	0.00	28.19
1979	0.00	0.00	0.00	0.00	2.02	7.00	8.23	6.61	5.37	2.84	0.00	0.00	32.07
1980	0.00	0.00	0.00	0.00	1.45	7.61	7.94	6.84	4.94	0.36	0.00	0.00	29.13
1981	0.00	0.00	0.00	0.00	2.40	7.89	7.78	6.58	5.07	1.88	0.00	0.00	31.61
1982	0.00	0.00	0.00	0.00	3.27	6.53	7.95	6.78	4.49	0.97	0.00	0.00	29.98
1983	0.00	0.00	0.00	0.00	1.01	6.13	7.91	7.05	3.92	0.00	0.00	0.00	26.01
1984	0.00	0.00	0.00	0.00	3.74	6.95	7.96	6.76	4.18	0.00	0.00	0.00	29.59
1985	0.00	0.00	0.00	0.00	2.02	7.10	7.63	6.99	4.38	0.00	0.00	0.00	28.13
1986	0.00	0.00	0.00	0.00	0.65	7.01	7.88	7.18	4.63	0.50	0.00	0.00	27.84
1987	0.00	0.00	0.00	0.60	5.07	7.18	7.97	6.87	4.93	1.43	0.00	0.00	34.05
1988	0.00	0.00	0.00	0.00	3.34	7.74	8.22	7.17	4.74	0.00	0.00	0.00	31.20
1989	0.00	0.00	0.00	0.00	2.74	6.79	8.60	7.00	5.05	2.05	0.00	0.00	32.23
1990	0.00	0.00	0.00	0.00	0.39	7.59	7.63	6.85	5.40	0.90	0.00	0.00	28.76
1991	0.00	0.00	0.00	0.00	2.58	7.35	7.71	6.74	4.90	0.59	0.00	0.00	29.87
1992	0.00	0.00	0.00	0.00	0.14	5.97	7.66	6.66	5.11	1.04	0.00	0.00	26.57
1993	0.00	0.00	0.00	0.00	0.84	6.95	8.61	6.76	2.41	0.00	0.00	0.00	25.57
1994	0.00	0.00	0.00	0.00	0.39	7.56	8.44	7.44	3.88	0.00	0.00	0.00	27.72
1995	0.00	0.00	0.00	0.00	0.00	2.95	8.06	7.71	3.96	0.00	0.00	0.00	22.68
1996	0.00	0.00	0.00	0.00	0.18	6.59	8.30	7.32	4.23	0.00	0.00	0.00	26.62
1997	0.00	0.00	0.00	0.00	0.16	6.45	8.43	6.96	5.18	1.72	0.00	0.00	28.90
1998	0.00	0.00	0.00	0.70	5.95	6.94	8.38	7.29	5.57	0.55	0.00	0.00	35.38
1999	0.00	0.00	0.00	0.00	1.52	6.20	7.29	5.80	3.93	0.00	0.00	0.00	24.74
2000	0.00	0.00	0.00	0.00	2.20	6.76	7.70	6.68	3.85	0.00	0.00	0.00	27.19
2001	0.00	0.00	0.00	0.00	0.61	6.53	7.64	6.27	4.66	0.69	0.00	0.00	26.40
2002	0.00	0.00	0.00	0.00	0.46	7.08	8.51	7.21	4.78	1.47	0.00	0.00	29.50
2003	0.00	0.00	0.00	0.00	3.10	6.51	8.82	7.01	2.11	0.00	0.00	0.00	27.55
2004	0.00	0.00	0.00	0.00	4.62	6.50	7.11	6.32	4.73	1.37	0.00	0.00	30.65
2005	0.00	0.00	0.00	0.00	0.04	5.74	8.41	6.42	5.07	2.54	0.00	0.00	28.22
2006	0.00	0.00	0.00	0.00	3.19	7.59	7.68	6.32	4.29	1.86	0.00	0.00	30.93
2007	0.00	0.00	0.00	0.23	4.99	7.18	7.88	6.93	4.97	1.01	0.00	0.00	33.18
2008	0.00	0.00	0.00	0.00	3.91	7.21	8.20	6.54	4.61	1.63	0.00	0.00	32.10
2009	0.00	0.00	0.00	0.75	5.48	6.36	7.27	6.76	4.50	0.22	0.00	0.00	31.33
Average	0.00	0.00	0.00	0.07	2.12	6.67	8.01	6.88	4.66	1.14	0.00	0.00	29.56

Sources:

Hargreaves, G.L., Hargreaves, G.H., and Riley, J.P. 1985. Agricultural benefits for Senegal River Basin. J. Irrigation and Drainage Engr., ASCE 111:113-124.

Allen, R.G. and Robison, C.W., April 2007. Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho, University of Idaho.

Appendix G

Analysis of Consumptive Use of Turfgrass

Coefficients:

	Kc ini	Kc mid	Kc end	Beg. Growth
Turfgrass, Table B-1. page 476	0.9	0.9	0.9	7 days before Last 28 Frost
		Beg. Pk		End Growth
		100% green-up		7 days after First 28 Frost

Source: *ASCE Evaporation, Evapotranspiration, and Irrigation Water Requirements, Second Edition, ASCE Manuals and Reports on Engineering Practice No. 70. Copyright 2016.*

Hargreaves REF-ET Calculation Inputs:

The anemometer height is:	2	meters	
The temperature/RH height is:	1.5	meters	
The weather station elevation is:	2097	meters	
The weather station latitude is :	39.99	degrees	
The weather station longitude is:	105.892	degrees	West
The time zone longitude is:	105	degrees	West
The default day/night wind ratio:	2		
The alfalfa reference height is:	0.5	meters	
The grass reference height is:	0.12	meters	
The weather vegetation height is:	0.12	meters	(0 = same as ref crop)
A user-entered grass surface resist. (for the above grass ht.) is: 70 s/m			
The green fetch of the Pan (A) is:	1000	meters	
The indicator for missing data is:	-999		
The alfalfa/grass ref. ratio is:	1.25		

Source: *REF-ET REFERENCE EVAPOTRANSPIRATION CALCULATOR Ver. 3.1 Windows: Computer Program to calculate ASCE Standardized Reference ET as recommended by the 1999-2005 ASCE Task Committee on Standardization of ET and to supplement ASCE Manual 70: EVAPOTRANSPIRATION AND IRRIGATION WATER REQUIREMENTS, M.E. Jensen, R.D. Burman and R.G. Allen, Editors, 1990 and FAO Irrigation and Drainage Paper No. 56: CROP EVAPOTRANSPIRATION: Guidelines for Computing Crop Water Req. R.G. Allen, L.S. Pereira, D. Raes, M. Smith. 1998.*

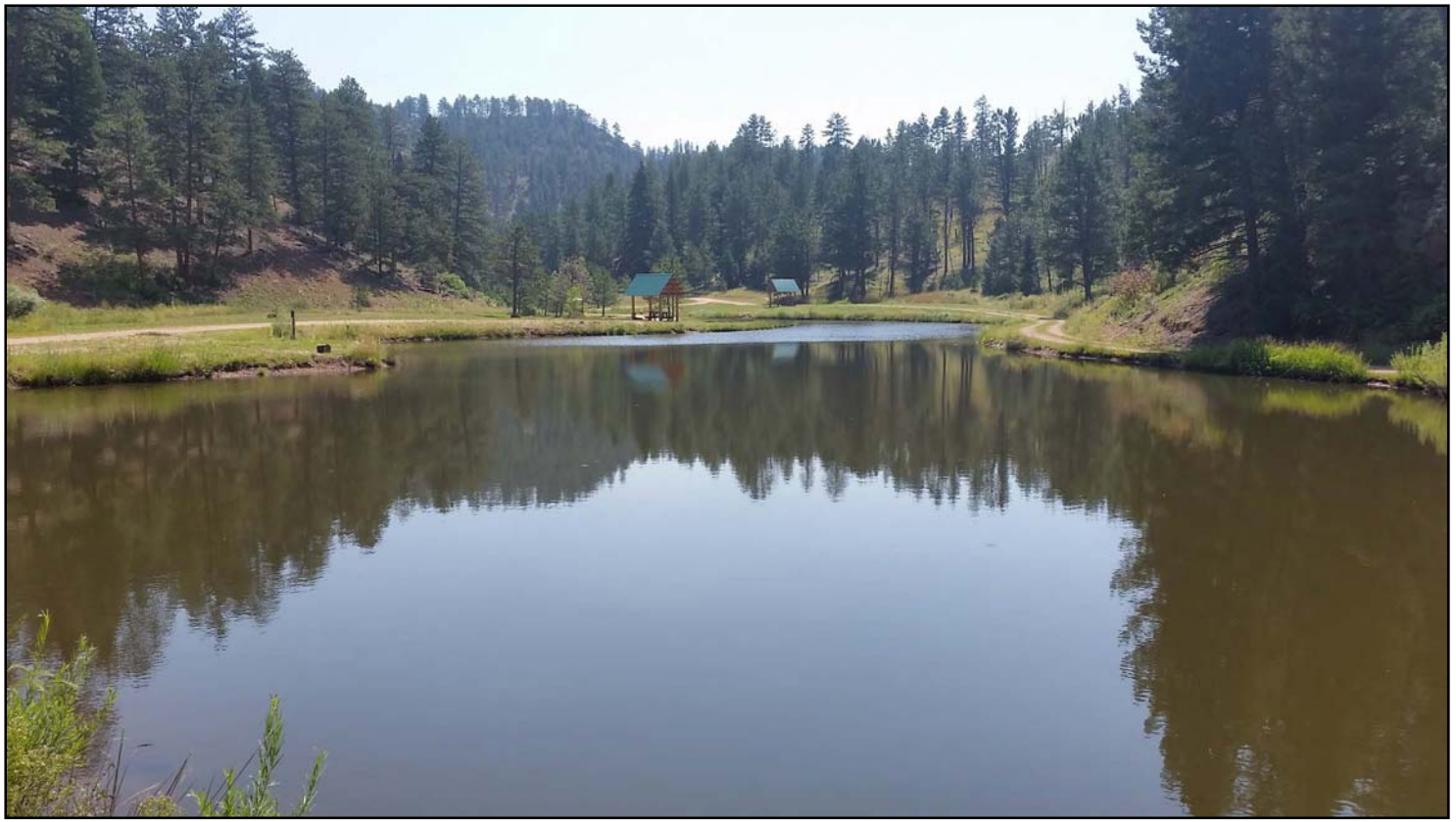
Consumptive Use
Hargraeves Method with ASCE Coefficients for Turfgrass
(Values in Inches)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1949	0.0	0.0	0.0	2.8	4.8	5.7	6.5	6.1	4.5	1.8	0.0	0.0	32.2
1950	0.0	0.0	0.0	0.0	2.2	6.5	6.3	5.8	4.2	3.4	0.6	0.0	29.0
1951	0.0	0.0	0.0	0.0	1.3	5.7	7.4	6.1	4.7	2.2	0.0	0.0	27.4
1952	0.0	0.0	0.0	1.8	5.1	7.1	6.9	5.8	4.7	1.4	0.0	0.0	32.7
1953	0.0	0.0	0.0	0.0	4.1	6.7	6.9	6.0	4.8	2.9	0.2	0.0	31.5
1954	0.0	0.0	0.0	0.7	5.2	7.1	7.2	6.3	4.7	2.3	0.0	0.0	33.5
1955	0.0	0.0	0.0	0.0	3.7	6.0	7.4	6.0	4.6	3.0	0.0	0.0	30.8
1956	0.0	0.0	0.0	0.0	4.2	7.1	7.1	5.9	5.0	3.0	0.1	0.0	32.3
1957	0.0	0.0	0.0	0.0	3.1	6.2	6.7	5.8	4.2	2.5	0.1	0.0	28.5
1958	0.0	0.0	0.0	0.3	5.3	6.5	6.7	6.3	4.5	3.0	0.4	0.0	32.8
1959	0.0	0.0	0.0	0.4	4.9	6.6	7.1	6.2	4.3	0.5	0.0	0.0	29.9
1960	0.0	0.0	0.0	0.0	3.3	6.6	6.6	6.4	4.4	2.3	0.0	0.0	29.6
1961	0.0	0.0	0.0	0.0	5.0	6.3	6.8	5.9	3.7	0.2	0.0	0.0	27.9
1962	0.0	0.0	0.0	0.0	2.5	5.9	6.9	6.4	4.4	3.1	0.1	0.0	29.3
1963	0.0	0.0	0.0	0.0	4.8	6.6	7.5	5.6	4.6	3.2	0.2	0.0	32.5
1964	0.0	0.0	0.0	0.0	4.8	6.2	7.5	5.9	4.4	1.3	0.0	0.0	30.0
1965	0.0	0.0	0.0	0.0	1.6	5.9	6.8	5.7	2.9	0.0	0.0	0.0	22.8
1966	0.0	0.0	0.0	0.0	4.5	6.2	7.2	5.8	4.4	2.1	0.0	0.0	30.3
1967	0.0	0.0	0.0	0.0	4.1	5.7	6.6	5.6	4.2	2.4	0.0	0.0	28.6
1968	0.0	0.0	0.0	0.0	3.2	6.8	6.7	5.5	4.4	1.6	0.0	0.0	28.1
1969	0.0	0.0	0.0	1.1	5.3	5.1	6.6	6.1	4.2	0.9	0.0	0.0	29.3
1970	0.0	0.0	0.0	0.0	4.1	5.9	6.7	6.0	4.0	0.3	0.0	0.0	27.0
1971	0.0	0.0	0.0	0.0	2.4	6.4	6.3	5.9	3.4	0.0	0.0	0.0	24.4
1972	0.0	0.0	0.0	0.0	2.9	6.4	6.8	5.8	4.1	2.7	0.0	0.0	28.7
1973	0.0	0.0	0.0	0.0	0.0	4.1	6.6	6.1	4.1	0.5	0.0	0.0	21.3
1974	0.0	0.0	0.0	0.0	0.0	6.6	7.2	6.0	4.2	0.6	0.0	0.0	24.7
1975	0.0	0.0	0.0	0.0	0.0	5.4	7.0	6.2	4.2	0.0	0.0	0.0	22.9
1976	0.0	0.0	0.0	0.0	0.0	4.2	7.3	6.0	4.1	1.5	0.0	0.0	23.1
1977	0.0	0.0	0.0	0.0	2.0	6.8	6.9	5.7	4.6	1.9	0.0	0.0	27.9
1978	0.0	0.0	0.0	0.0	4.7	6.1	6.6	5.6	4.0	0.0	0.0	0.0	26.9
1979	0.0	0.0	0.0	0.0	3.5	6.0	7.1	5.7	4.6	3.0	0.0	0.0	29.8
1980	0.0	0.0	0.0	0.0	3.1	6.6	6.8	5.9	4.2	1.2	0.0	0.0	27.7
1981	0.0	0.0	0.0	0.0	3.9	6.8	6.7	5.6	4.3	2.1	0.0	0.0	29.4
1982	0.0	0.0	0.0	0.2	4.5	5.6	6.8	5.8	3.8	1.3	0.0	0.0	28.1
1983	0.0	0.0	0.0	0.0	2.5	5.4	6.8	6.0	4.2	0.0	0.0	0.0	24.9
1984	0.0	0.0	0.0	0.0	5.3	6.0	6.8	5.8	4.0	0.2	0.0	0.0	28.1
1985	0.0	0.0	0.0	0.0	3.8	6.1	6.5	6.0	3.8	0.6	0.0	0.0	26.7
1986	0.0	0.0	0.0	0.0	2.4	6.3	6.8	6.2	4.0	1.0	0.0	0.0	26.6
1987	0.0	0.0	0.0	2.3	4.6	6.2	6.8	5.9	4.2	1.8	0.0	0.0	31.7
1988	0.0	0.0	0.0	0.0	4.9	6.6	7.0	6.1	4.2	0.5	0.0	0.0	29.5
1989	0.0	0.0	0.0	0.0	4.7	5.8	7.4	6.0	4.3	2.2	0.0	0.0	30.4

Consumptive Use
Hargraeves Method with ASCE Coefficients for Turfgrass
(Values in Inches)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1990	0.0	0.0	0.0	0.0	2.4	7.1	6.5	5.9	4.6	1.3	0.0	0.0	27.8
1991	0.0	0.0	0.0	0.0	4.5	6.3	6.6	5.8	4.2	1.3	0.0	0.0	28.7
1992	0.0	0.0	0.0	0.0	1.4	5.9	6.6	5.7	4.4	1.6	0.0	0.0	25.6
1993	0.0	0.0	0.0	0.0	2.9	6.2	7.4	5.8	2.9	0.0	0.0	0.0	25.2
1994	0.0	0.0	0.0	0.0	2.4	7.2	7.2	6.4	4.2	0.0	0.0	0.0	27.4
1995	0.0	0.0	0.0	0.0	0.0	5.2	6.9	6.6	4.1	0.0	0.0	0.0	22.8
1996	0.0	0.0	0.0	0.0	1.5	6.6	7.1	6.3	4.0	0.3	0.0	0.0	25.8
1997	0.0	0.0	0.0	0.0	1.6	6.5	7.2	6.0	4.4	2.1	0.0	0.0	27.8
1998	0.0	0.0	0.0	1.9	5.2	6.0	7.2	6.2	4.8	1.2	0.0	0.0	32.5
1999	0.0	0.0	0.0	0.0	3.3	5.3	6.2	5.0	3.5	0.6	0.0	0.0	24.0
2000	0.0	0.0	0.0	0.0	3.9	5.8	6.6	5.7	3.8	0.2	0.0	0.0	26.1
2001	0.0	0.0	0.0	0.0	2.3	5.9	6.6	5.4	4.0	1.1	0.0	0.0	25.3
2002	0.0	0.0	0.0	0.0	2.2	6.7	7.3	6.2	4.1	1.9	0.0	0.0	28.3
2003	0.0	0.0	0.0	0.0	4.6	5.6	7.6	6.0	2.7	0.0	0.0	0.0	26.5
2004	0.0	0.0	0.0	0.8	5.1	5.6	6.1	5.4	4.1	1.8	0.0	0.0	28.8
2005	0.0	0.0	0.0	0.0	1.3	5.9	7.2	5.5	4.3	2.7	0.0	0.0	27.0
2006	0.0	0.0	0.0	0.0	4.9	6.5	6.6	5.4	3.7	2.0	0.0	0.0	29.1
2007	0.0	0.0	0.0	1.4	4.8	6.2	6.8	5.9	4.3	1.5	0.0	0.0	30.8
2008	0.0	0.0	0.0	0.5	4.6	6.2	7.0	5.6	4.0	2.0	0.0	0.0	29.9
2009	0.0	0.0	0.0	1.9	4.8	5.4	6.2	5.8	3.9	0.7	0.0	0.0	28.8
Average	0.0	0.0	0.0	0.3	3.4	6.1	6.9	5.9	4.2	1.4	0.0	0.0	28.15

Cougar Lake, Rainbow Falls Mountain Trout Inc.



Bear Lake, Rainbow Falls Mountain Trout Inc.

COLORADO
Division of Water Resources
Department of Natural Resources

John W. Hickenlooper
Governor

Robert Randall
Executive Director

Dick Wolfe, P.E.
Director/State Engineer

August 23, 2016

John W. Mayberry, P.E.
Gregory K. Sullivan, P.E.
Spronk Water Engineers, Inc.
1000 Logan Street
Denver, CO 80203-3011

Re: Substitute Water Supply Plan for Rainbow Falls Mountain Trout Club
Case No. 2015CW3183, WDID 0802769
Sections 21 and 28, Township 10 South, Range 69 West, 6th P.M.
Water Division 1, Water District 8, Douglas County

Approval Period: July 1, 2016 through June 30, 2017
Contact information for Mr. Mayberry: 303-861-9700; jwm@spronkwater.com
Contact information for Mr. Sullivan: 303-861-9700; greg@spronkwater.com

Dear Mr. Mayberry and Mr. Sullivan:

We have reviewed your letter dated June 3, 2016, in which you request approval of a Substitute Water Supply Plan ("SWSP") on behalf of the Rainbow Falls Mountain Trout Club ("Rainbow Falls" or "Applicant"), pursuant to § 37-92-308(4), C.R.S. The Applicant has filed an application in Division 1 Water Court case no. 2015CW3183 for water storage rights, surface water rights, and approval of a plan for augmentation. The requested SWSP references the application in case no. 2015CW3183 and notice of the requested SWSP was provided to all parties opposing the water court case via ICCES filing on June 3, 2016. The State Engineer's Office ("SEO") did not receive any comments during the statutory 30-day comment period. The required $300 filing fee has been received (receipt no. 3674856).

The Rainbow Falls SWSP was initially approved pursuant to § 37-92-308(5), C.R.S., on July 22, 2011, and this SWSP seeks to extend the plan past five years from that original date of approval. Pursuant to § 37-92-308(4)(b), C.R.S., "If an applicant requests renewal of a plan that would extend the plan past five years from the initial date of approval, the applicant shall demonstrate to the water judge in the applicable water division that the delay in obtaining a decree has been justifiable and that not being able to continue operating under a substitute water supply plan until a decree is entered will cause undue hardship to the applicant. Approval of a plan pursuant to subsection (5) of this section shall be deemed to be approved under this subsection (4) for purposes of calculating the number of years since the initial date of approval." The Applicant filed an unopposed motion with the court for findings as required under § 37-92-308(4)(b), C.R.S. By an Order approved July 8, 2016, the court granted the motion.

SWSP Operation

Rainbow Falls is a private fishing club located on two parcels of land along Trout Creek in Section 21, Township 10 South, Range 69 West of the 6th P.M. (Figure 1). Rainbow Falls uses water to supply raceways where young trout are matured, nine fish ponds where trout are stocked and fished, and for domestic uses at a private residence and an RV camper. The application filed in case no.

2015CW3183 claims use for an additional two residences, a lodge, and five acres of irrigation; however, these uses are not proposed during this plan period and are not included in this SWSP.

The source of the water for the raceways, three of the fish ponds (Elk Lake, Eagle Lake, and Spring Lake), and domestic use for the residence and the RV camper is a perennial spring known as the Big Spring Pipeline Well ("Big Spring", WDID 0808148). Water for the in-house uses at the private residence and the RV camper is delivered from the Big Spring via a pipeline. The water right associated with the Big Spring is identified in the table below:

Water Right	WDID	Case No.	Decreed Use	Decreed Amount	Source	Appropriation Date
Big Spring Pipeline Well	0808148	W-6138	Domestic, commercial, fish culture, recreational and irrigation of 25 acres in the NW¼ of Sec. 28, Twp. 10 S, Rng. 69 W	1.0 cfs	Groundwater	December 31, 1914

The remaining six fish ponds (Trout Creek Lake, Ute Lake, Watson Lake, Bear Lake, and Cougar Lake) are located on and are filled by diversions from Trout Creek.

Under this SWSP, Rainbow Falls seeks to replace the out-of-priority depletions resulting from the use of water from the Big Spring as described herein as well as out-of-priority diversions from Trout Creek during times when a senior priority call affecting Trout Creek is in effect. The proposed replacement source is reusable effluent leased from the City of Woodland Park. When reusable effluent is not available, Rainbow Falls proposes to release water from the ponds to offset depletions.

The Colorado Water Conservation Board ("CWCB") holds an Instream Flow Right ("ISFR") decreed in case no. W8731 for 2.0 cfs in Trout Creek with an appropriation date of November 11, 1977, and an ISFR decreed in case no. 80CW210 for 5.0 cfs in Horse Creek with an appropriation date of May 7, 1980. According to § 37-92-102(3)(b), C.R.S., these appropriations are subject to present uses at the time of appropriation. According to information provided by the Applicant in a letter dated May 15, 2014, the Big Spring water right is senior to the CWCB ISFR and the three fish ponds filled by Big Spring (Elk Lake, Eagle Lake, and Spring Lake) were in existence prior to the appropriation dates of the ISFRs. Based on the appropriation dates claimed in case no. 2015CW3183, Ute Lake, Palmer Lake, Trout Creek Lake, and Watson Lake were also in existence prior to the appropriation dates of the ISFRs. Bear Lake and Cougar Lake both have a claimed appropriation date of August 16, 2004 and therefore do not pre-date the ISFRs.

Depletions

During this plan period, depletions will occur to Trout Creek as a result of evaporation from the raceways and fish ponds, and consumptive use of the water used inside the residence and the RV camper. Currently there are no irrigation uses of water from the spring.

Based on a survey conducted in the fall of 2015, the total surface area of the fish ponds and raceways is 20.88 acres. The fish ponds are typically kept full; therefore water is effectively diverted to fill the ponds at a rate equal to evaporation losses. Gross evaporation from the raceways and the fish ponds surface areas was determined using NOAA Technical Report NWS 33, Evaporation Atlas for the Contiguous 48 United States and it was estimated at 2.92 acre-feet per surface acre (35 inches). The annual gross evaporation was distributed monthly based on the State Engineer's General

Guidelines for Substitute Water Supply Plans. Gross evaporation was calculated to total 60.90 acre-feet per year for the 20.88 acres of surface area at the site.

Under Colorado statutory law, evapotranspiration (ET) credit can be utilized to offset the evaporation depletions for streambed reservoirs and gravel pit ponds. The raceways and all nine of the fish ponds are on-channel, therefore the gross evaporation from the ponds and raceways may be reduced by the consumptive use of the native vegetation that existed prior to their construction. The two types of vegetation that existed at the site of the ponds and raceways prior to their construction were wetlands in the valley bottom adjacent to Trout Creek and native grasses in the upland areas outside of the valley bottom. The typical mix of wetlands and native vegetation can be seen in the areas upstream and downstream of the Rainbow Falls property. The area of the historical wetland vegetation inundated by the ponds and raceways is estimated to be 17.89 acres based on wetland delineation using an aerial photo from 1937 (Figure 2). The remaining area inundated by the ponds and raceways outside of the delineated wetlands totals 2.99 acres, and this area was determined to have been previously covered by native grasses.

The consumptive use from the wetlands was calculated using the Hargreaves method. The Hargreaves equation uses daily temperature data to determine grass reference evapotranspiration ("ET") values. Reference ET values were determined using daily weather data from Cheesman Reservoir for the period 1949-2009. The reference ET values were adjusted to a specific vegetation type using empirical crop coefficients that represent the water use characteristics of the specific plant type. Crop coefficients for large stand wetland were chosen based on research conducted by R. G. Allen (Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho, University of Idaho, September 2006, revised April 2007) under similar environmental conditions. Input data and results are presented in the attached Appendix C. You determined that the annual consumptive use for wetlands at the Rainbow Falls location averaged 29.56 inches per year, or 44.07 acre-feet for the 17.89 acres of wetland vegetation at the site.

The historical consumptive use from the upland vegetation was computed as 70% of the total precipitation using the measured mean monthly Cheesman Reservoir precipitation for the period of 1949-2009. The historical consumptive use from the upland vegetation was calculated as 11.46 inches per year, or 2.85 acre-feet for the subject 2.99 acres.

Based on the above, the net annual evaporation volume was determined to be 20.68 acre-feet. A monthly breakdown of gross evaporation and average consumptive use amounts is shown in the attached Table 1. (Note: For some months the calculated consumptive use of native vegetation exceeded the calculated gross evaporation, resulting in less consumptive use credit able to be claimed than was calculated).

Estimated evaporation losses were reduced under this plan during the ice covered period, resulting in an estimated net evaporation loss of 16.64 acre-feet per year. You have assumed the ice covered period occurs from late November through mid-March based on the daily temperature records for the Cheesman Reservoir weather station during late fall and winter when the average daily temperature was less than 32°F. The ice covered periods may be used to reduce the amount of evaporative losses that need to be replaced; however, for the purpose of this SWSP, the Applicant shall replace the net evaporative depletions from the exposed ground water surface area that may occur during the assumed ice covered period (late November 2016 through mid-March 2017) for any time that the ponds and/or raceways are not completely covered by ice.

The calculated consumptive use attributable to indoor domestic use in the private residence and the RV camper was estimated at 0.067 acre-feet, based on a water supply demand of 0.33 acre-feet per year for each residence and a 10% consumptive use factor from the use of septic tank leach fields for the disposal system. For the purposes of this SWSP, it was assumed that both residences will be occupied year-round and that water use would evenly distributed over the year.

Depletions at the Rainbow Falls property will total 16.71 acre-feet for this plan period, and are distributed monthly as shown in the attached Table 1.

Replacement Water

The replacement water source for this SWSP is fully consumable excess augmentation water leased from the City of Woodland Park ("Woodland Park") when available. A copy of the lease agreement dated August 15, 2016, is attached. The term of the lease is for ten years, unless otherwise terminated. When excess augmentation water is not available from Woodland Park, Rainbow Falls will release water from the ponds at a volume equivalent to the net consumptive use (net evaporation rate plus consumption for the in-house domestic uses).

The leased excess augmentation water is water available through Woodland Park's normal operations of its water sources and its water and wastewater systems. Woodland Park's water supply is a combination of trans-basin water delivered to the Woodland Park raw water system via Colorado Springs' Homestake Pipeline pursuant to an agreement between Woodland Park and Colorado Springs, and from local sources tributary to Trout Creek. The trans-basin water consists mainly of fully consumable water and a minor amount of native Twin Lakes water. At least 3.74% of the Twin Lakes water carried for Woodland Park by Colorado Springs is required to be returned to Fountain Creek on an average annual basis, while the remainder is considered to be fully consumable. The out-of-priority depletions resulting from the use of Woodland Park's Trout Creek water are replaced pursuant to the plans for augmentation decreed by the water court in case nos. 1986CW376 and 2002CW254. The source of replacement water for the decreed augmentation plans is reusable effluent discharged to Trout Creek.

The excess augmentation water from Woodland Park will be discharged to Trout Creek from the Woodland Park Waste Water Treatment Plant ("WWTP", WDID 0802301) located in the SE¼ SW¼ Section 2, Township 12 South, Range 69 West of the 6th P.M., upstream of Rainbow Falls. The excess augmentation water leased from Woodland Park will be reduced by 6.2% based on a transit loss rate of 0.5% per mile for 12.4 river miles between the WWTP outfall and the point where the flow from the Big Spring enters Trout Creek. Conveyance loss for delivery of augmentation water is subject to assessment and modification as determined by the water commissioner and/or division engineer.

In the event that insufficient replacement water is available from Woodland Park, water will be released from the ponds to make up for the shortage. The water level in the ponds can be varied by approximately five feet through the operation of the existing outlet works. For example, the removal of stop-logs located at the pond overflow outlet of Trout Creek Lake can reduce the water level in the pond by approximately 4.8 feet. Elk Lake and Eagle Lake have Agri-Drains capable of dropping the water level by 3.6 and 3.7 feet, respectively. The attached Table 2 summarizes the extent to which the water level and storage volume of each pond can be varied. Rainbow may modify the outlet works of some of the ponds in the future to increase control of storage operations.

The stage-area-capacity relationships developed for each pond (attached as Appendix E) will be utilized to determine the volume of water stored in and released from each pond. The current

operational storage volume of the nine ponds is approximately 28.78 acre-feet. Rainbow Falls will utilize any leased excess augmentation water from Woodland Park not directly used to make replacements to refill the ponds that have been drawn down.

Proposed daily and monthly accounting for this plan is shown in the attached Tables 3 and 4, respectively.

Conditions of Approval

This SWSP is hereby approved pursuant to § 37-92-308(4), C.R.S., subject to the conditions stated below.

1. This SWSP shall be valid for the period of July 1, 2016 through June 30, 2017, unless otherwise revoked, modified, or superseded by decree. The initial date of approval for this SWSP was July 22, 2011. Pursuant to § 37-92-308(4)(b), C.R.S., "If an applicant requests renewal of a plan that would extend the plan past five years from the initial date of approval, the applicant shall demonstrate to the water judge in the applicable water division that the delay in obtaining a decree has been justifiable and that not being able to continue operating under a substitute water supply plan until a decree is entered will cause undue hardship to the applicant." This SWSP will not be approved for the 2017 - 2018 period unless we receive evidence from the court that the applicant has met this requirement. Additional SWSPs are required until a court decreed plan for augmentation is obtained for the proposed uses. Should an additional SWSP be requested, the provisions of § 37-92-308(4), C.R.S., shall apply. The statutory fee of $300 will be required pursuant to § 37-92-308(8), C.R.S. Any request for an additional SWSP must be submitted to this office no later than April 1, 2017.
2. Approval of this SWSP is for the purposes stated herein, consisting of domestic use at the private residence and the RV camper and evaporation losses from the nine fish ponds and the raceways. Additional uses may be included only if an additional SWSP is approved for additional uses. Additional uses and additional water rights may be included only if an additional SWSP is approved for those uses and/or water rights. Should an additional SWSP be requested, the provisions of § 37-92-308(4)(b), C.R.S., shall apply. The statutory fee of $300 will be required pursuant to § 37-92-308(8), C.R.S.
3. The Applicant shall provide daily accounting (including, but not limited to diversions, depletions, replacement sources, and river calls) on a monthly basis, or more frequent if required by the water commissioner. The Accounting period for purposes of this SWSP must be November 1st through October 31st. The accounting must be emailed to the water commissioner, James.Swank@state.co.us, and Div1Accounting@state.co.us within 30 days of the end of the month for which the accounting applies. Accounting and reporting procedures are subject to approval and modification by the division engineer. Accounting forms need to identify the WDID number for each structure operating under this SWSP. **NOTE:** Monthly accounting, even during the winter non-irrigation season, is required.
4. Applicant shall verify that the entity making replacement, in this case the City of Woodland Park, has included them on their accounting submitted to our office.
5. The Applicant shall follow the attached accounting protocol for the operation of this SWSP.
6. The name, address, and phone number of the contact person who will be responsible for the operation and accounting of this SWSP must be provided on the accounting forms to the division engineer and water commissioner.

7. All diversions shall be measured in a manner acceptable to the division engineer. The Applicant shall install and maintain measuring devices as required by the division engineer for operation of this SWSP.
8. Conveyance loss for delivery of augmentation water is subject to assessment and modification as determined by the water commissioner and/or division engineer.
9. Replacement water shall be made available to cover all out-of-priority depletions in time, place, and amount and shall be made available under the direction and/or approval of the water commissioner. Notice must be provided and approval made by the water commissioner at least 48 hours prior to the release of replacement water, or as required by the water commissioner.
10. This SWSP may be revoked or modified at any time should it be determined that injury to other vested water rights has occurred or will occur as a result of the operation of this SWSP. Should this SWSP expire without renewal or be revoked prior to adjudication of a permanent plan for augmentation, all use of water under this SWSP must cease immediately.
11. The decision of the state engineer shall have no precedential or evidentiary force, shall not create any presumptions, shift the burden of proof, or serve as a defense in any pending water court case or any other legal action that may be initiated concerning the SWSP. This decision shall not bind the state engineer to act in a similar manner in any other applications involving other SWSPs or in any proposed renewal of this SWSP, and shall not imply concurrence with any findings of fact or conclusions of law contained herein, or with the engineering methodologies used by the Applicant. Any appeal of a decision made by the state engineer concerning an SWSP pursuant to § 37-92-308(4), C.R.S., shall be to the Division 1 water judge within thirty days of the date of this decision and shall be consolidated with the application for approval of the plan for augmentation.

Should you have any comments or questions, please contact Dean Santistevan, Assistant Division Engineer at 970-352-8712 or Sarah Brucker in this office.

Sincerely,

Tracy L Kroeger

for Jeff Deatherage
Chief of Water Supply

Attachments:
Figures 1 and 2
Tables 1, 2, 3, and 4
Appendix C - Consumptive Use Data and Results
Appendix E - Stage-Area-Capacity Curves
2016 Woodland Park Agreement
Accounting Protocol

Cc: Dean Santistevan, Assistant Division Engineer (dean.santistevan@state.co.us)
810 9th Street, Suite 200, Greeley CO 80631

James Swank, Water Commissioner, Water District 8 (james.swank@state.co.us)

Alan G. Hill, Yates Law Firm, LLC (ahill@yateslawfirmllc.com)

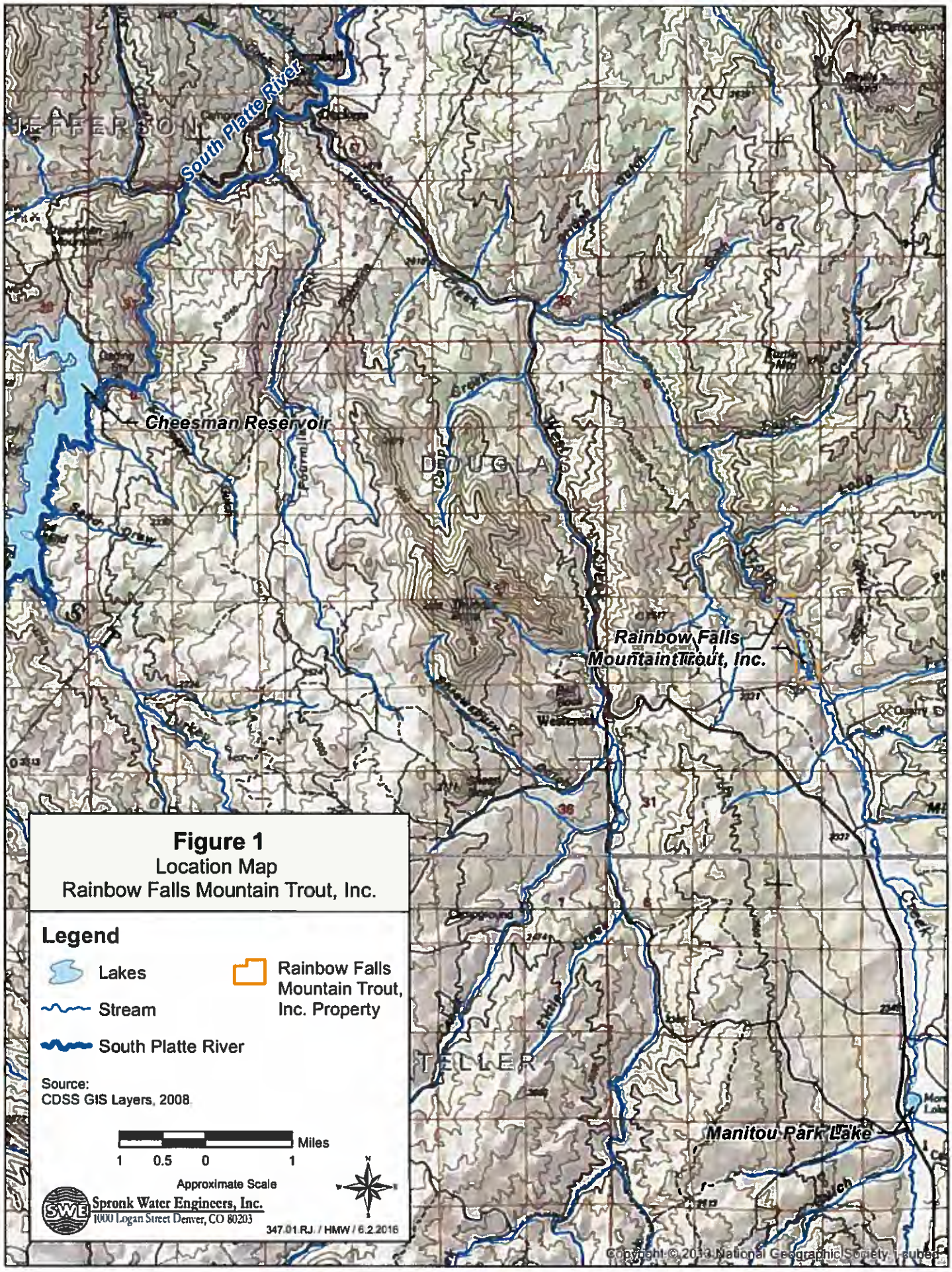


Figure 1
Location Map
Rainbow Falls Mountain Trout, Inc.

Legend

- Lakes
- Stream
- South Platte River
- Rainbow Falls Mountain Trout, Inc. Property

Source:
CDSS GIS Layers, 2008

1 0.5 0 1 Miles

Approximate Scale

Spronk Water Engineers, Inc.
1000 Logan Street Denver, CO 80203

347.01.RJ. / HMW / 6.2.2016

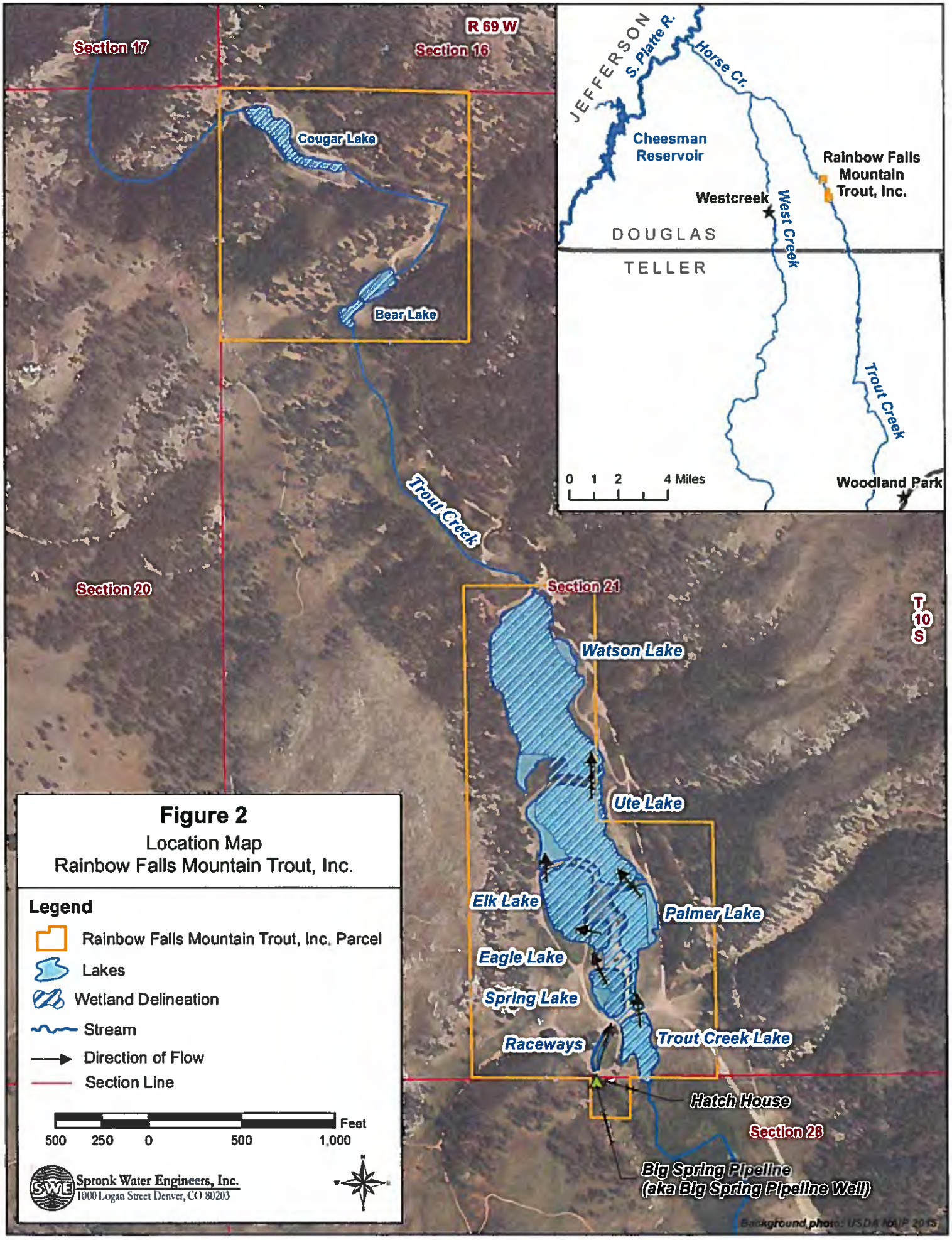

R 69 W
Section 17
Section 16
Cougar Lake
Bear Lake
Trout Creek
Section 20
Section 21
T 10 S
Watson Lake
Ute Lake
Elk Lake
Palmer Lake
Eagle Lake
Spring Lake
Raceways
Trout Creek Lake
Hatch House
Section 28
Big Spring Pipeline
(aka Big Spring Pipeline Well)
JEFFERSON
S. Platte R.
Horse Cr.
Cheesman Reservoir
Rainbow Falls Mountain Trout, Inc.
Westcreek
West Creek
DOUGLAS
TELLER
Trout Creek
0 1 2 4 Miles
Woodland Park
Figure 2
Location Map
Rainbow Falls Mountain Trout, Inc.
Legend
Rainbow Falls Mountain Trout, Inc. Parcel
Lakes
Wetland Delineation
Stream
Direction of Flow
Section Line
Feet
500 250 0 500 1,000
Spronk Water Engineers, Inc.
1000 Logan Street Denver, CO 80203
Background photo: USDA NAIP 2015

Table 1

Monthly Water Consumption for Pond Evaporation and Domestic Water Uses
Rainbow Falls Mountain Trout, Inc.

Evaporation Parameters	
Average annual evaporation (in)	35.0
(from NOAA Tech. Report NWS 33)	
(Enter Pan or Free Water Surface Evaporation)	
Pan coefficient:	1.00
(If average annual evaporation is FWS enter 1)	
% of precipitation consumed by upland vegetation	70.0%
Elevation above mean sea level (ft)	7550

Surface Area of Ponds and Raceways	
Total water surface area (ac)	20.88
Total wetlands inundated (ac)	17.89
Total upland area inundated (ac)	2.99

Domestic Use Parameters	
Number residences	2
Annual domestic water use (AF/res)	0.333
Domestic consumptive use %	10%

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	Pond Evaporation													
(1)	Monthly evaporation distribution >6500 ft.	1.0%	3.0%	6.0%	9.0%	12.5%	15.5%	16.0%	13.0%	11.0%	7.5%	4.0%	1.5%	100.0%
(2)	Gross evaporation (in)	0.35	1.05	2.10	3.15	4.38	5.43	5.60	4.55	3.85	2.63	1.40	0.53	35.00
(3)	Average monthly precipitation (in)	0.46	0.57	1.28	1.66	1.94	1.69	2.54	2.61	1.21	1.06	0.76	0.59	16.37
(4)	Precipitation consumed by upland vegetation (in)	0.32	0.40	0.90	1.16	1.36	1.18	1.78	1.83	0.85	0.74	0.53	0.41	11.46
(5)	Wetland CU (in)	0.00	0.00	0.00	0.07	2.12	6.67	8.01	6.88	4.66	1.14	0.00	0.00	29.56
(6)	Gross pond and raceway evaporation (AF)	0.61	1.83	3.65	5.48	7.61	9.44	9.74	7.92	6.70	4.57	2.44	0.91	60.90
(7)	Precipitation consumed by upland vegetation (AF)	0.08	0.10	0.22	0.29	0.34	0.29	0.44	0.46	0.21	0.18	0.13	0.10	2.85
(8)	Wetland CU (AF)	0.00	0.00	0.00	0.10	3.16	9.94	11.94	10.26	6.95	1.70	0.01	0.00	44.07
(9)	Net evaporation (AF)	0.53	1.73	3.43	5.09	4.11	-	-	-	-	2.68	2.30	0.81	20.68
(10)	Percent of month with no ice cover	0.0%	0.0%	80.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	86.7%	0.0%	-
(11)	Net evaporation on ice-free days (AF)	-	-	2.77	5.09	4.11	-	-	-	-	2.68	1.99	-	16.64
	Domestic Use													
(12)	Domestic water use (AF)	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.667
(13)	Domestic water consumption (AF)	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.067
(14)	Total Consumptive Use	0.006	0.006	2.772	5.100	4.115	0.006	0.006	0.006	0.006	2.685	1.997	0.006	16.71

Notes:

(1) Monthly evaporation distribution for elevations above 6500 feet msl (CDWR, 2009).
(2) Average annual evaporation multiplied by monthly evaporation distribution (1).
(3) Average monthly precipitation at Cheesman (1949-2009).
(4) Average monthly precipitation (3) multiplied by the percentage of precipitation consumed by upland vegetation.
(5) Average monthly consumptive use based on Hargreaves method (REF-ET) and large stand wetlands coefficients (Allen, 2007).
(6) Gross evaporation (2) converted to feet and multiplied by total water surface area.
(7) Precipitation consumed by upland vegetation (4) and multiplied by total historic upland area now inundated.
(8) Wetland CU (5) converted to feet and multiplied by total historic wetland now inundated.
(9) Gross pond evaporation (6) minus precipitation consumed by upland vegetation (7) minus wetland CU (8).
(10) Percent of month with average daily temperatures greater than 32°F using Cheesman temperature data (1949-2009).
(11) Net evaporation (9) multiplied by percent of month with no ice cover (10).
(12) One-third AF/y x two residences, spread evenly year round.
(13) Domestic use x 10% consumption.
(14) Sum of net evaporation (11) plus domestic water consumption (13).

Information Sources

- Aerial Imagery: 1937 Douglas County historic aerial photo from Google Earth, USDA 1999 DOQ, and USDA 2009 NAIP.
- Allen, R.G. and Robison, C.W., April 2007. Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho, University of Idaho.
- Colorado Division of Water Resources, 2009. General Guidelines for Substitute Water Supply Plans for Sand and Gravel Pits.
- NOAA Technical Report NWS TR-33, June 1982. Evaporation Atlas for the Contiguous 48 United States.
- Allen, R.G. and University of Idaho, 2001. REF-ET: Evapotranspiration Calculation Software for FAO and ASCE Standardized Equations, Version 3.1.01.

Table 2

Operational Storage and Surface Area of Lakes and Raceways

Rainbow Falls Mountain Trout, Inc.

Lake	Full Water Surface Elevation (feet above msl)	Outlet Invert Elevation (feet above msl)	Current Operational Stage Range (feet)	Full Water Surface Area (acres)	Current Operational Storage (acre-feet)	Outlet Works
Spring Lake	7472.63	7471.04	1.59	0.97	1.46	Stop logs
Eagle Lake	7468.69	7465.01	3.68	0.38	1.11	Agri Drain
Elk Lake	7468.12	7464.56	3.56	2.12	6.59	Agri Drain
Trout Creek Lake	7473.41	7468.65	4.76	0.95	3.28	Concrete outlet with stop logs
Palmer Lake	7467.81	7467.28	0.53	1.52	0.78	Rock spillway
Ute Lake	7464.80	7464.21	0.59	4.21	2.41	Concrete outlet with stop logs
Watson Lake	7458.81	7457.65	1.16	8.34	8.77	Concrete outlet with stop logs
Bear Lake	7431.35	7428.86	2.49	1.12	2.14	48-inch pipe outlet with stop logs
Cougar Lake	7412.75	7410.57	2.19	1.14	2.25	48-inch pipe outlet with stop logs
Raceways	--	--	0.00	0.13	0.00	--
			Totals	**20.88**	**28.78**	

Source: 2015 Hydrographic survey.

Table 3
Illustrative Daily Accounting Summary
Rainbow Falls Mountain Trout, Inc. SWSP
June 2016

Contact:
Richard Johnson
Rainbow Falls Mountain Trout Inc.
P.O. Box 279, Woodland Park, CO 80866
(719) 687-8690

Values are not actual. For illustrative purposes only.

Plan Administration No. = XXXXXX.XX

Date	Prev	6/1	6/2	6/3	6/4	6/5	6/6	6/7	6/8	6/9	6/10	6/11	6/12	6/13	6/14	6/15	6/16	6/17	6/18	6/19	6/20	6/21	6/22	6/23	6/24	6/25	6/26	6/27	6/28	6/29	6/30	Monthly
Priority Call																																
(1) Ice cover? (1-Yes, 0-No)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(2) In-Priority? (1-Yes, 0-No)		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	22
Spring Lake (WDID 0803321)																																
(3) Gage Reading (ft)		1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	
(4) Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(5) Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(6) Computed Inflow (+) Outflow (-)		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.30
Eagle Lake (WDID 0803320)																																
(7) Gage Reading (ft)		3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	
(8) Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(9) Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(10) Computed Inflow (+) Outflow (-)		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.30
Elk Lake (WDID 0803319)																																
(11) Gage Reading (ft)		3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	
(12) Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(13) Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(14) Computed Inflow (+) Outflow (-)		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.30
Trout Creek Lake (WDID 0803XXXX)																																
(15) Gage Reading (ft)		4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	
(16) Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(17) Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(18) Computed Inflow (+) Outflow (-)		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.30
Palmer Lake (WDID 0803XXXX)																																
(19) Gage Reading (ft)		0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	
(20) Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(21) Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(22) Computed Inflow (+) Outflow (-)		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.30
Ute Lake (WDID 0803XXXX)																																
(23) Gage Reading (ft)		0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	
(24) Available Storage Space (af)	0.00	0.02	0.05	0.07	0.10	0.12	0.14	0.17	0.19	0.22	0.24	0.26	0.29	0.31	0.34	0.36	0.38	0.41	0.43	0.46	0.48	0.50	0.53	0.55	0.58	0.60	0.62	0.65	0.67	0.70	0.72	0.72
(25) Change in Storage Volume (af)		-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.72
(26) Computed Inflow (+) Outflow (-)		-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.72
Bear Lake (WDID 0803XXXX)																																
(27) Gage Reading (ft)		2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	
(28) Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(29) Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(30) Computed Inflow (+) Outflow (-)		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.30
Cougar Lake (WDID 0803XXXX)																																
(31) Gage Reading (ft)		2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	
(32) Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(33) Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(34) Computed Inflow (+) Outflow (-)		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.30
Watson Lake (WDID 0803XXXX)																																
(35) Gage Reading (ft)		1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	
(36) Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(37) Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(38) Computed Inflow (+) Outflow (-)		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.30
Water Consumption (af)																																
(39) Total Pond Evaporation		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
(40) Total Raceway Evaporation		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
(41) Domestic Consumptive Use		0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00
(42) Total Water Consumption		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Total Replacement Obligation (af)																																
(43) Out-of-Priority Computed Inflow		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.45
(44) Out-of-Priority Raceway Inflow		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
(45) Out-of-Priority Domestic CU		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00
(46) Total Replacement Oblig		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.45
Total Replacement Supplies (af)																																
(47) Leased Water at Woodland Park		0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	1.00
(48) Leased Water Transit Loss		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.06
(49) Total Replacement Supply		0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.94
Net Stream Effect (Out of Priority) (af)																																
(50) Depletion (-) or Accretion (+)		0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	0.49
(51) Cumulative Effect	0.03	0.06	0.09	0.12	0.15	0.19	0.22	0.25	0.28	0.31	0.34	0.37	0.41	0.44	0.47	0.50	0.53	0.56	0.59	0.62	0.66	0.69	0.72	0.69	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.52

*All values in acre-feet, unless indicated otherwise

Notes

(1) Is there ice covering entire pond? (Enter "1" for yes and "0" for no
(2) Is the plan in priority? (Enter "1" for yes and "0" for no
(3) Manual staff gage reading (ft)
(4) Available storage space in pond (volume below full) (af)
(5) Change in storage amount based on gage reading and stage-capacity relationship (af
(6) Computed inflow equal to the change of storage plus the evaporation (af;
(7) Manual staff gage reading (ft)
(8) Available storage space in pond (volume below full) (af)
(9) Change in storage amount based on gage reading and stage-capacity relationship (af
(10) Computed inflow equal to the change of storage plus the evaporation (af;
(11) Manual staff gage reading (ft)
(12) Available storage space in pond (volume below full) (af)
(13) Change in storage amount based on gage reading and stage-capacity relationship (af).
(14) Computed inflow equal to the change of storage plus the evaporation (af).
(15) Manual staff gage reading (ft).
(16) Available storage space in pond (volume below full) (af).
(17) Change in storage amount based on gage reading and stage-capacity relationship (af).
(18) Computed inflow equal to the change of storage plus the evaporation (af).
(19) Manual staff gage reading (ft)
(20) Available storage space in pond (volume below full) (af)
(21) Change in storage amount based on gage reading and stage-capacity relationship (af).
(22) Computed inflow equal to the change of storage plus the evaporation (af).
(23) Manual staff gage reading (ft)
(24) Available storage space in pond (volume below full) (af).
(25) Change in storage amount based on gage reading and stage-capacity relationship (af).
(26) Computed inflow equal to the change of storage plus the evaporation (af)
(27) Manual staff gage reading (ft)
(28) Available storage space in pond (volume below full) (af)
(29) Change in storage amount based on gage reading and stage-capacity relationship (af
(30) Computed inflow equal to the change of storage plus the evaporation (af;
(31) Manual staff gage reading (ft)
(32) Available storage space in pond (volume below full) (af)
(33) Change in storage amount based on gage reading and stage-capacity relationship (af
(34) Computed inflow equal to the change of storage plus the evaporation (af;
(35) Manual staff gage reading (ft)
(36) Available storage space in pond (volume below full) (af)
(37) Change in storage amount based on gage reading and stage-capacity relationship (af
(38) Computed inflow equal to the change of storage plus the evaporation (af;
(39) Total pond evaporation based on total surface area of ponds; no evaporation assumed when there is full ice cover (af).
(40) Total raceway evaporation (af).
(41) Daily domestic consumptive use (af)
(42) Row (12) + Row (13) + Row (14).
(43) Total out-of-priority computed inflow (af).
(44) Total out-of-priority inflow to replace raceway evaporation (af).
(45) Total out-of-priority consumptive use of water for domestic use (af).
(46) Row (16) + Row (17) + Row (18).
(47) Total water leased at Woodland Park (af).
(48) Transit loss of leased Woodland Park water (0.5% per mile x 12.4 miles = 6.2%).
(49) Row (20) - Row (21); no credit when plan is in-priority (af).
(50) Row (22) - Row (19).
(51) Current days effect on river + previous days effect on river; (-) net depletion and (+) net accretion (af).

Table 4
Illustrative Monthly Accounting Summary
Rainbow Falls Mountain Trout, Inc. SWSP

Contact:
Richard Johnson
Rainbow Falls Mountain Trout Inc.
P.O. Box 279, Woodland Park, CO 80866
(719) 687-8690

Month 6
Year 2016

Values are not actual. For illustrative purposes only.

Date	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Annual
Priority Call													
(1) Total Days with Ice Cover	7	0	23	18	0	0	0	0					48
(2) Total Days in Priority	7	0	23	8	31	26	19	22					136
Elk Lake (WDID 0803319)													
(3) Available Storage Space	0.17	0.23	0.00	0.00	0.00	0.00	0.00	0.00					
(4) Change in Storage Volume	-0.17	-0.06	0.23	0.00	0.00	0.00	0.00	0.00					0.00
(5) Computed Inflow (+) Outflow (-	-0.03	-0.03	0.01	0.05	0.32	0.42	0.59	0.30					1.62
Eagle Lake (WDID 0803320)													
(6) Available Storage Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
(7) Change in Storage Volume	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.00
(8) Computed Inflow (+) Outflow (-	0.02	0.00	0.00	0.01	0.05	0.50	0.06	0.30					0.95
Spring Lake (WDID 0803321)													
(9) Available Storage Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
(10) Change in Storage Volume	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.00
(11) Computed Inflow (+) Outflow (-	0.06	0.01	0.01	0.02	0.14	0.15	0.16	0.30					0.86
Trout Creek Lake (WDID 0803321)													
(12) Available Storage Space	0.23	0.03	0.02	0.08	0.51	0.00	0.60	0.00					
(13) Change in Storage Volume	0.01	0.01	0.00	0.01	0.02	0.00	0.03	0.00					0.08
(14) Computed Inflow (+) Outflow (-	0.01	0.01	0.01	0.01	0.01	0.10	0.01	0.30					0.43
Palmer Lake (WDID 080XXX)													
(15) Available Storage Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
(16) Change in Storage Volume	-0.02	-0.02	0.00	-0.02	0.00	0.00	-0.03	0.00					-0.10
(17) Computed Inflow (+) Outflow (-	0.01	0.01	0.00	0.01	0.00	0.10	0.01	0.30					0.43
Ute Lake (WDID 080XXX)													
(18) Available Storage Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72					
(19) Change in Storage Volume	0.25	0.05	0.02	0.11	0.54	0.58	0.65	-0.72					1.50
(20) Computed Inflow (+) Outflow (-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.72					0.00
Bear Lake (WDID 080XXX)													
(21) Available Storage Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
(22) Change in Storage Volume	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.94
(23) Computed Inflow (+) Outflow (-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30					0.30
Cougar Lake (WDID 080XXX)													
(24) Available Storage Space	0.00	0.01	0.01	0.02	0.02	0.00	0.00	0.25					
(25) Change in Storage Volume	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.25					-0.25
(26) Computed Inflow (+) Outflow (-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30					0.30
Watson Lake (WDID 080XXX)													
(27) Available Storage Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
(28) Change in Storage Volume	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.00
(29) Computed Inflow (+) Outflow (-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30					0.30
Water Consumption													
(30) Total Pond Evaporation	0.23	0.03	0.02	0.08	0.51	0.55	0.60	0.00					2.02
(31) Total Raceway Evaporation	0.01	0.01	0.00	0.01	0.02	0.02	0.03	0.00					0.10
(32) Domestic Consumptive Use	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00					0.05
(33) Total Water Consumption	0.24	0.04	0.03	0.10	0.54	0.58	0.63	0.00					2.17
Total Replacement Obligation													
(34) Out-of-Priority Computed Inflow	-0.02	-0.02	0.00	-0.02	0.00	0.00	-0.03	0.72					0.62
(35) Out-of-Priority Raceway Inflow	0.01	0.01	0.00	0.01	0.00	0.00	0.01	0.00					0.03
(36) Out-of-Priority Domestic CU	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00					0.02
(37) Total Replacement Oblig	-0.01	-0.01	0.01	-0.01	0.00	0.00	-0.02	0.72					0.67
(38) In-Priority Depletions	0.25	0.05	0.02	0.11	0.54	0.58	0.65	2.20					4.41
Total Replacement Supplies													
(39) Leased Water at Woodland Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00					1.00
(40) Leased Water Transit Loss	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06					0.06
(41) Total Replacement Supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94					0.94
Net Stream Effect (Out of Priority)													
(42) Depletion (-) or Accretion (+)	0.01	0.01	-0.01	0.01	0.00	0.00	0.02	0.22	0.00	0.00	0.00	0.00	0.00
(43) Cumulative Effect	0.00	0.01	0.01	0.02	0.02	0.02	0.04	0.25	0.25	0.25	0.25	0.25	0.25

*All values in acre-feet, unless indicated otherwise

Notes:

(1) Total number of days with full ice cover over ponds (days)
(2) Total number of days the plan is in priority (days)
(3) Total available storage space (af)
(4) Change in storage volume (af)
(5) Computed inflow or outflow (af)
(6) Total available storage space (af)
(7) Change in storage volume (af)
(8) Computed inflow or outflow (af)
(9) Total available storage space (af)
(10) Change in storage volume (af)
(11) Computed inflow or outflow (af)
(12) Total available storage space (af)
(13) Change in storage volume (af)
(14) Computed inflow or outflow (af)
(15) Total available storage space (af)
(16) Change in storage volume (af)
(17) Computed inflow or outflow (af)
(18) Total available storage space (af)
(19) Change in storage volume (af)
(20) Computed inflow or outflow (af)
(21) Total available storage space (af)
(22) Change in storage volume (af)
(23) Computed inflow or outflow (af)
(24) Total available storage space (af)
(25) Change in storage volume (af)
(26) Computed inflow or outflow (af)
(27) Total available storage space (af)
(28) Change in storage volume (af)
(29) Computed inflow or outflow (af)
(30) Total pond evaporation based on total surface area of ponds; no evaporation assumed when there is full ice cover (af
(31) Total raceway evaporation (af)
(32) Total domestic consumptive use (af)
(33) Row (30) + Row (31) + Row (32)
(34) Total out-of-priority computed inflow (af)
(35) Total out-of-priority inflow to replace raceway evaporation (af
(36) Total out-of-priority consumptive use of water for domestic use (af)
(37) Row (34) + Row (35) + Row (36)
(38) Total Depletions in priority, not requiring replacement
(39) Total water leased at Woodland Park (af)
(40) Transit loss of leased Woodland Park water (0.5% per mile x 12.4 miles = 6.2%)
(41) Total leased water (17) minus transit loss (18)
(42) Net stream depletion (af)
(43) Current months net effect on river + previous months net effect on river; (-) net depletion and (+) net accretion (af

Appendix C
Consumptive Use Data and Results

Coefficients:

Season - Large stand cattails & bulrushes

	Start	End	Description	Coeff. Grn-up	Coeff. Full Cover
Green-up, linear based on %	Last 28F	T30 =11C	Start to Green-up	0.2	1.05
Constant, based on days after full cover	T30 =11C	Last 28F	Full Cover to End		1.05

Source: *Allen, R.G. and Robison, C.W. Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho, University of Idaho, September 2006, revised April 2007.*

Hargreaves REF-ET Calculation Inputs:

The anemometer height is:	2	meters	
The temperature/RH height is:	1.5	meters	
The weather station elevation is:	2097	meters	
The weather station latitude is :	39.99	degrees	
The weather station longitude is:	105.9	degrees	West
The time zone longitude is:	105	degrees	West
The default day/night wind ratio:	2		
The alfalfa reference height is:	0.5	meters	
The grass reference height is:	0.12	meters	
The weather vegetation height is:	0.12	meters	(0 = same as ref crop)
A user-entered grass surface resist. (for the above grass ht.) is: 70 s/m			
The green fetch of the Pan (A) is:	1000	meters	
The indicator for missing data is:	-999		
The alfalfa/grass ref. ratio is:	1.25		

Source: *REF-ET REFERENCE EVAPOTRANSPIRATION CALCULATOR Ver. 3.1 Windows: Computer Program to calculate ASCE Standardized Reference ET as recommended by the 1999-2005 ASCE Task Committee on Standardization of ET and to supplement ASCE Manual 70: EVAPOTRANSPIRATION AND IRRIGATION WATER REQUIREMENTS, M.E. Jensen, R.D. Burman and R.G. Allen, Editors, 1990 and FAO Irrigation and Drainage Paper No. 56: CROP EVAPOTRANSPIRATION: Guidelines for Computing Crop Water Req. R.G. Allen, L.S. Pereira, D. Raes, M. Smith. 1998.*

Table C-1
Average Temperature
Cheesman Reservoir
(Values in °F)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
1949	20.4	28.6	36.7	44.4	52.8	59.9	66.1	65.3	59.5	47.4	45.0	31.8	46.5
1950	30.0	33.6	37.2	45.6	50.1	63.3	64.0	62.3	58.3	56.5	40.2	35.8	48.1
1951	25.5	32.5	35.1	41.7	53.3	57.7	69.3	66.1	59.7	46.9	35.6	30.3	46.1
1952	31.7	30.4	31.8	44.4	52.3	66.2	67.2	65.0	60.5	50.4	30.8	28.8	46.6
1953	34.9	30.1	39.6	40.3	48.7	64.0	68.5	65.1	61.1	49.2	40.9	29.0	47.6
1954	33.9	39.9	34.0	50.2	53.2	65.4	69.4	66.1	60.9	49.9	40.6	32.1	49.6
1955	26.0	23.7	34.8	45.0	53.4	59.7	68.5	66.1	58.9	48.7	36.0	36.0	46.4
1956	32.1	25.4	36.3	42.1	55.8	64.9	64.7	61.3	58.8	49.4	33.1	30.8	46.2
1957	27.1	36.9	36.5	39.5	48.8	60.0	66.8	65.8	56.0	48.4	33.0	34.9	46.1
1958	27.4	33.8	28.4	39.1	54.3	63.2	65.3	66.0	60.3	50.2	39.4	35.1	46.9
1959	28.5	29.2	33.6	41.9	51.7	62.8	65.2	66.3	56.4	45.3	37.1	31.9	45.8
1960	25.4	20.2	34.8	44.5	50.4	62.0	65.1	66.5	60.3	47.0	39.4	28.5	45.3
1961	25.8	30.0	36.0	41.2	53.4	60.9	65.2	65.1	52.9	47.0	34.1	26.0	44.8
1962	19.9	30.1	30.6	44.9	52.2	58.7	65.2	65.5	59.0	51.2	40.2	32.2	45.8
1963	21.9	33.9	33.6	45.8	54.6	61.3	68.2	63.7	60.8	53.1	40.0	28.5	47.1
1964	25.8	21.7	29.6	42.2	52.1	58.7	67.7	62.9	57.5	48.1	36.3	31.5	44.5
1965	32.0	28.0	25.7	44.3	50.2	58.4	65.3	61.3	51.6	48.8	40.7	33.4	45.0
1966	26.1	23.7	37.8	42.5	53.9	60.7	69.7	64.4	59.7	49.0	41.3	30.7	46.6
1967	32.0	31.6	42.5	45.9	50.3	58.6	66.4	61.9	57.7	50.4	38.2	25.5	46.8
1968	29.2	30.9	34.8	39.0	49.4	62.6	64.3	62.6	56.4	49.8	34.5	30.8	45.4
1969	34.4	32.5	27.5	46.5	53.5	56.1	66.6	67.2	59.6	40.2	35.9	31.2	45.9
1970	28.0	34.7	30.6	39.2	52.2	58.9	65.7	66.6	55.7	43.0	37.9	33.0	45.5
1971	31.5	27.3	34.6	41.9	48.4	60.7	63.5	63.8	53.7	46.2	37.1	29.2	44.8
1972	29.1	31.9	40.2	44.3	50.5	61.4	64.4	63.2	56.5	48.7	27.8	24.6	45.2
1973	22.9	27.3	32.3	36.3	48.5	58.1	62.6	63.2	54.7	47.9	38.0	28.5	43.4
1974	24.2	27.9	39.0	40.8	53.3	59.9	64.0	60.7	52.5	47.0	34.3	24.7	44.0
1975	25.8	25.3	33.5	38.4	46.6	56.4	63.1	61.1	53.2	47.2	31.9	30.4	42.7
1976	26.5	32.7	31.9	41.1	47.8	57.3	63.4	62.1	55.4	43.4	33.8	29.2	43.7
1977	24.1	29.1	29.8	41.8	51.8	64.7	67.0	64.8	59.9	49.3	38.7	34.5	46.3
1978	27.7	29.7	38.1	46.4	49.6	61.2	64.2	59.5	53.9	42.1	31.3	17.2	43.4
1979	12.8	24.4	32.7	37.8	45.9	58.2	65.8	62.0	59.0	49.1	29.6	30.0	42.3
1980	28.0	31.8	32.0	38.6	48.0	62.6	67.0	64.3	57.9	45.1	35.7	36.8	45.6
1981	33.3	32.7	34.8	48.6	51.4	64.8	66.8	63.3	59.9	48.0	39.7	32.0	47.9
1982	29.0	27.4	38.3	42.6	49.6	57.6	66.6	66.6	57.4	45.2	36.7	30.9	45.7
1983	31.7	32.2	34.2	36.3	46.1	56.7	67.4	67.6	60.3	48.9	35.9	21.0	44.9
1984	22.5	28.2	32.3	38.9	54.4	59.7	67.0	64.0	56.7	40.9	37.3	32.6	44.5
1985	22.5	23.4	34.5	44.3	51.1	60.9	65.0	64.1	53.9	45.2	35.6	27.0	44.0
1986	35.7	31.3	40.3	44.4	49.2	61.0	63.4	62.7	54.6	44.5	35.9	27.3	45.9
1987	24.6	29.1	31.5	43.2	50.9	60.9	64.7	63.1	54.9	46.6	34.8	25.0	44.1
1988	19.9	29.1	31.7	42.4	50.7	62.5	64.8	64.7	54.5	47.7	35.2	25.2	44.0
1989	24.7	21.2	37.7	43.8	52.0	57.0	66.3	62.0	55.4	44.1	37.2	22.1	43.6
1990	27.1	25.9	33.2	42.2	47.9	62.5	62.3	60.3	58.1	43.8	35.5	22.6	43.4
1991	24.3	31.4	36.7	42.0	51.8	61.1	63.7	62.5	55.2	44.9	30.9	27.7	44.3
1992	25.7	30.2	35.8	45.6	52.3	57.1	61.6	58.9	54.5	46.5	26.6	24.5	43.3
1993	24.7	24.9	34.7	39.0	48.5	56.9	62.5	59.2	50.2	39.2	28.2	24.6	41.1
1994	25.6	23.6	33.9	37.3	50.6	61.0	61.4	62.1	52.3	40.8	30.2	26.0	42.1
1995	21.9	29.0	32.0	33.5	42.0	52.8	57.8	61.3	50.5	43.6	37.7	28.9	40.9
1996	24.4	29.9	30.9	41.5	53.5	59.8	64.7	61.6	51.1	43.7	33.5	27.6	43.5
1997	22.4	23.3	33.1	33.9	47.7	57.5	62.0	59.5	55.1	41.7	26.8	18.0	40.1
1998	23.3	23.8	31.7	41.0	55.5	61.0	63.6	59.6	56.8	46.3	38.9	26.7	44.0
1999	31.5	32.8	36.8	35.5	46.0	55.6	64.1	59.5	51.0	42.6	36.8	24.1	43.0
2000	27.0	31.1	32.1	40.8	50.4	57.7	63.1	62.3	52.5	41.9	23.1	22.2	42.0
2001	20.3	25.4	31.0	40.3	47.5	59.0	63.9	59.4	52.8	42.5	32.8	23.5	41.5
2002	20.8	20.9	27.2	40.9	46.6	64.4	70.6	68.0	59.4	44.5	35.8	30.6	44.2
2003	34.5	27.6	36.0	45.9	53.8	60.4	72.5	68.3	57.1	52.5	36.3	31.8	48.0
2004	29.6	26.1	43.0	43.7	54.3	60.1	65.2	62.9	57.8	48.1	35.7	31.3	46.5
2005	34.2	32.7	34.3	40.5	51.7	60.6	70.3	63.9	60.4	49.1	39.6	27.7	47.1
2006	33.2	28.9	36.9	46.9	55.6	65.5	68.9	65.6	54.0	45.9	39.2	29.1	47.5
2007	21.1	30.2	38.9	41.9	53.2	62.7	69.1	68.5	60.6	50.3	40.3	25.9	46.9
2008	23.1	28.9	34.8	40.8	50.5	61.9	69.4	66.0	57.5	48.5	40.2	28.3	45.8
2009	31.0	35.1	39.2	40.9	54.8	60.0	65.9	65.0	57.1	40.1	39.5	22.8	45.9
Average	26.9	28.9	34.4	41.9	50.9	60.4	65.6	63.6	56.5	46.6	35.8	28.5	45.0

Source:

High Plains Regional Climate Center Archive of National Weather Service Surface Observations.

Table C-2
Monthly Precipitation
Cheesman Reservoir
(Values in Inches)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1949	0.52	0 36	1.21	2.28	3 03	2.82	3.92	0.72	0 10	0.73	0.04	0.10	15 83
1950	0.88	0 85	0.58	1.83	1.95	1.57	3.45	0.91	1.38	0.16	0.70	0.04	14.30
1951	0.81	0.70	1.34	1.16	1.53	1.89	2.43	2.78	0 56	0.81	0.58	0.75	15.34
1952	0.02	0.33	0.93	2.87	2.91	0 00	1.67	2.81	0 05	0.00	0.87	0.40	12.86
1953	0.38	0.68	0.92	2.44	2.05	1.10	3.38	2.13	0.00	0.39	0.38	0 72	14.57
1954	0.25	0.64	0.80	0.41	1.95	0 36	3.90	1.77	1.61	0.19	0.76	0.45	13.09
1955	0.27	0.79	1.34	0.65	3.94	0.71	2.24	5.76	1.16	0 17	0.35	0.25	17.63
1956	0.36	0.46	1.03	1.66	1.89	0 37	1.86	1.90	0.00	0.28	0 91	0 60	11.32
1957	0.96	0.57	0.84	3.03	5 00	1.81	3.38	1.58	1.00	1.69	1.28	0 27	21.41
1958	0.48	0.11	1.59	1.30	2.93	0 64	2.03	1.46	1.39	0.45	0 41	0 43	13.22
1959	0.74	0.50	1.74	1.64	2.06	0.80	1.01	1.89	2.17	2.24	0 55	0.27	15.61
1960	0.53	1.90	0.90	1.47	2.08	0.29	1.86	0.31	1.24	1.92	0 50	0.93	13.93
1961	0.06	0.92	0.95	1.62	1.43	1.90	2.52	4.28	3.67	0.62	1.03	0.32	19.32
1962	1.40	0.57	0.38	1.58	0.53	1.15	2.31	0.43	0.31	0.37	0.72	0.25	10.00
1963	0.36	0.23	0.94	0.00	0.18	1.91	1.85	6.43	2.42	0.78	0.51	0.68	16.29
1964	0.17	1.22	1.61	0.68	1.38	1.90	1.00	1.85	0.61	0.06	1.23	0.33	12.04
1965	0.30	0.99	1.12	1.46	1.02	2.89	4.70	1.64	2.52	0.25	0.21	0.47	17.57
1966	0.59	0.69	0.56	1.47	1.00	2.50	3.68	1.66	1.06	0.77	0.46	0.10	14.54
1967	0.36	0.45	0.23	2.72	2.64	1.42	4.07	2.91	0.95	1.51	0.55	1.00	18.81
1968	0.15	0.95	0.73	1.42	0.60	0.74	3.16	1.61	1.41	2.34	0.95	0.64	14.70
1969	0.13	0.07	1.53	0.77	4.56	2.71	2.24	3.90	0.58	6.09	0.58	1.14	24 30
1970	0.09	0.54	2.64	0.93	1.13	2.03	3.04	3.60	2.32	0.86	1.61	0.04	18 83
1971	0.21	1.00	0.60	1.93	1.21	0.14	5.70	1.91	2.37	1.32	0.25	0.33	16 97
1972	0.74	0.67	1.33	1.15	1.09	1.08	2.37	3.18	1.09	0.86	2.62	1.11	17.29
1973	0.75	0.00	1.32	4.34	5.36	0.74	1.74	0 38	1.31	0.66	0.41	2.98	19.99
1974	0 87	0.77	0.95	2.46	0.15	1.55	3.30	1.54	0.57	1.78	0.50	0.47	14.91
1975	0 61	0 56	1.25	1.56	2.08	1.84	1.85	2.10	0.37	0.88	2.17	0.24	15.51
1976	0 31	0.17	1.10	1.99	2.32	1.58	2.38	2.40	1.89	1.88	0.24	0 30	16.56
1977	0.11	0 56	2.17	1.82	0 29	1.72	3.26	3.83	0 48	0.16	1.55	0 09	16.04
1978	0.15	0 36	1.92	1.10	1.74	1.66	2.28	0.45	0.51	1.27	0.30	1.01	12.75
1979	0.51	0.46	1.64	1.87	3 33	2 42	2.75	1.90	0.66	1.19	1.25	1.17	19.15
1980	0.46	0.29	0.86	3.14	3 23	0 27	2.42	1.60	0.37	0.19	0.86	0.00	13.69
1981	0.07	0 63	1.85	0.32	2.01	2.17	3.36	3.66	0.86	1.33	0.35	0.63	17.24
1982	0.36	0.22	0.44	0.39	3.56	4 43	3.09	4.47	2.92	0.99	0.21	2.53	23.61
1983	0.11	0.69	3.55	1.29	2.55	2.87	2.11	2.23	0.31	0.04	2.48	0.62	18.85
1984	0.22	0.93	1.98	2.07	0.20	1.20	5.06	4.86	0.53	3.84	0.14	0.33	21.36
1985	0.25	0.96	0.88	1.76	1.70	1.09	3.81	1.61	2.39	0.65	0.90	0.79	16.79
1986	0.20	0.60	0.72	2.00	0.77	2.28	2.04	2.81	0.80	1.71	1.14	0.58	15.65
1987	0.64	1.63	1.27	0.52	4.51	2.60	1.04	3.11	0.63	1.44	1.11	1.36	19.86
1988	0.38	0.43	1.53	0.84	2.37	2.71	0.84	3.60	1.12	0.16	0.37	0.54	14.89
1989	0.91	0.87	0.21	1.25	1.50	2.91	1.90	0.97	1.16	0.56	0.31	0.83	13.38
1990	0.21	0.63	4.20	1.92	2.15	0.25	3.48	2.48	3.07	1.56	1.00	0.30	21.25
1991	0.39	0.19	0.62	1.22	2.60	3.09	3.64	3.90	0.24	0.66	2.29	0.11	18.95
1992	0.42	0.12	2.46	0.58	1.04	4.72	2.75	3.39	0.06	1.08	1.13	0.31	18.06
1993	0.23	0.65	0.77	1.35	1.66	1.43	0.68	2.45	1.79	1.72	0.39	0.51	13.63
1994	0.58	0.34	1.04	2.36	2.39	1.87	1.07	4.11	0.98	1.31	0.45	0.44	16.94
1995	0.15	0.93	1.86	3.29	3.15	3.50	2.56	1.98	1.32	0.21	0.27	0.06	19.28
1996	0.94	0.12	0.90	1.64	1.87	1.24	1.91	1.73	2.68	0.41	0.74	0.21	14.39
1997	0.21	0.85	0.75	2.28	1.25	2.15	1.42	5.95	1.01	3.03	1.04	0.50	20.44
1998	0.21	0.00	1.39	1.81	1.27	1.32	4.99	1.65	1.29	0.41	0.55	0.43	15.32
1999	0.28	0.27	0.47	3.62	2.89	1.90	1.09	3.94	0.69	0.72	0.52	0.68	17.07
2000	1.06	0.20	1.68	1.52	1.03	0.78	2.15	4.22	2.46	0.30	0.54	0 33	16.27
2001	0.36	0.61	1.53	1.54	2.00	1.84	1.70	2.27	0.98	0.00	0.54	0 14	13.51
2002	0.50	0.24	0.75	0.00	0.99	0.33	1.37	0.85	1.96	1.43	0.16	0 02	8.60
2003	0.20	0.94	4.06	0 65	0.68	1.47	0.30	2.51	0.18	0.16	0.36	0.44	11.95
2004	0.45	0.93	0.50	3.12	0.81	2.95	2.48	3 03	1.39	0.91	1.72	0.15	18.44
2005	1.34	0.07	1.75	3.11	1.14	0.99	0.70	2.40	1.19	1.13	0.35	0.46	14.63
2006	0.45	0.23	0.73	0.49	0 68	1.04	3.54	4.35	1.74	2.84	0.55	2.61	19.25
2007	1.15	0.37	1.31	1.22	2.64	1.91	2.07	4.58	0.62	0.49	0.28	1.15	17.79
2008	0.62	0 93	1.22	1.28	0.74	0.33	0.45	3.88	1.53	0.65	0.35	0.37	12.35
2009	0.45	0.09	0.57	2.82	1.80	3.05	5.55	0.77	1.87	1.85	0.83	0.56	20.21
Average	0.46	0.57	1.28	1.66	1.94	1.69	2.54	2.61	1.21	1.06	0.76	0.59	16 37

Source.
High Plains Regional Climate Center Archive of National Weather Service Surface Observations.

Table C-3
Historical Consumptive Use of Wetlands
Rainbow Falls
(Values in Inches)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1949	0.00	0.00	0.00	1.29	5.59	6.61	7.56	7.08	5.23	1.35	0.00	0.00	34.70
1950	0.00	0.00	0.00	0.00	0.41	6.91	7.34	6.82	4.87	3.97	0.21	0.00	30.54
1951	0.00	0.00	0.00	0.00	0.00	5.22	8.61	7.09	5.48	2.03	0.00	0.00	28.43
1952	0.00	0.00	0.00	0.39	5.44	8.29	8.05	6.73	5.43	0.72	0.00	0.00	35.05
1953	0.00	0.00	0.00	0.00	2.44	7.86	8.06	6.98	5.58	2.95	0.00	0.00	33.88
1954	0.00	0.00	0.00	0.00	4.69	8.25	8.36	7.33	5.50	1.89	0.00	0.00	36.03
1955	0.00	0.00	0.00	0.00	1.65	7.02	8.67	7.04	5.40	2.93	0.00	0.00	32.71
1956	0.00	0.00	0.00	0.00	2.06	8.32	8.28	6.91	5.78	3.01	0.00	0.00	34.36
1957	0.00	0.00	0.00	0.00	1.52	7.20	7.77	6.81	4.96	2.44	0.00	0.00	30.70
1958	0.00	0.00	0.00	0.00	4.29	7.54	7.79	7.31	5.26	3.37	0.00	0.00	35.57
1959	0.00	0.00	0.00	0.00	3.60	7.75	8.25	7.19	4.99	0.00	0.00	0.00	31.79
1960	0.00	0.00	0.00	0.00	1.26	7.52	7.73	7.42	5.17	1.98	0.00	0.00	31.08
1961	0.00	0.00	0.00	0.00	3.40	7.36	7.97	6.83	3.70	0.00	0.00	0.00	29.25
1962	0.00	0.00	0.00	0.00	0.62	6.54	7.99	7.50	5.19	3.16	0.00	0.00	31.00
1963	0.00	0.00	0.00	0.00	2.66	7.72	8.75	6.57	5.34	3.42	0.00	0.00	34.45
1964	0.00	0.00	0.00	0.00	2.81	7.20	8.73	6.91	5.11	0.72	0.00	0.00	31.48
1965	0.00	0.00	0.00	0.00	0.20	5.91	7.92	6.60	2.74	0.00	0.00	0.00	23.38
1966	0.00	0.00	0.00	0.00	2.69	7.21	8.45	6.77	5.14	1.86	0.00	0.00	32.11
1967	0.00	0.00	0.00	0.00	2.08	6.69	7.75	6.51	4.95	1.97	0.00	0.00	29.95
1968	0.00	0.00	0.00	0.00	1.38	7.85	7.77	6.39	5.11	1.05	0.00	0.00	29.55
1969	0.00	0.00	0.00	0.04	5.17	5.94	7.70	7.12	4.90	0.50	0.00	0.00	31.36
1970	0.00	0.00	0.00	0.00	2.02	6.83	7.81	6.97	4.16	0.00	0.00	0.00	27.79
1971	0.00	0.00	0.00	0.00	0.63	7.04	7.34	6.84	3.18	0.00	0.00	0.00	25.03
1972	0.00	0.00	0.00	0.00	0.80	7.12	7.89	6.80	4.75	2.59	0.00	0.00	29.96
1973	0.00	0.00	0.00	0.00	0.00	1.60	7.49	7.15	4.47	0.00	0.00	0.00	20.71
1974	0.00	0.00	0.00	0.00	0.00	4.46	8.39	7.02	4.62	0.00	0.00	0.00	24.50
1975	0.00	0.00	0.00	0.00	0.00	3.22	8.21	7.26	3.83	0.00	0.00	0.00	22.52
1976	0.00	0.00	0.00	0.00	0.00	1.63	8.39	6.98	4.77	0.88	0.00	0.00	22.65
1977	0.00	0.00	0.00	0.00	0.34	7.04	8.03	6.68	5.34	1.34	0.00	0.00	28.76
1978	0.00	0.00	0.00	0.00	3.26	7.12	7.66	6.48	3.67	0.00	0.00	0.00	28.19
1979	0.00	0.00	0.00	0.00	2.02	7.00	8.23	6.61	5.37	2.84	0.00	0.00	32.07
1980	0.00	0.00	0.00	0.00	1.45	7.61	7.94	6.84	4.94	0.36	0.00	0.00	29.13
1981	0.00	0.00	0.00	0.00	2.40	7.89	7.78	6.58	5.07	1.88	0.00	0.00	31.61
1982	0.00	0.00	0.00	0.00	3.27	6.53	7.95	6.78	4.49	0.97	0.00	0.00	29.98
1983	0.00	0.00	0.00	0.00	1.01	6.13	7.91	7.05	3.92	0.00	0.00	0.00	26.01
1984	0.00	0.00	0.00	0.00	3.74	6.95	7.96	6.76	4.18	0.00	0.00	0.00	29.59
1985	0.00	0.00	0.00	0.00	2.02	7.10	7.63	6.99	4.38	0.00	0.00	0.00	28.13
1986	0.00	0.00	0.00	0.00	0.65	7.01	7.88	7.18	4.63	0.50	0.00	0.00	27.84
1987	0.00	0.00	0.00	0.60	5.07	7.18	7.97	6.87	4.93	1.43	0.00	0.00	34.05
1988	0.00	0.00	0.00	0.00	3.34	7.74	8.22	7.17	4.74	0.00	0.00	0.00	31.20
1989	0.00	0.00	0.00	0.00	2.74	6.79	8.60	7.00	5.05	2.05	0.00	0.00	32.23
1990	0.00	0.00	0.00	0.00	0.39	7.59	7.63	6.85	5.40	0.90	0.00	0.00	28.76
1991	0.00	0.00	0.00	0.00	2.58	7.35	7.71	6.74	4.90	0.59	0.00	0.00	29.87
1992	0.00	0.00	0.00	0.00	0.14	5.97	7.66	6.66	5.11	1.04	0.00	0.00	26.57
1993	0.00	0.00	0.00	0.00	0.84	6.95	8.61	6.76	2.41	0.00	0.00	0.00	25.57
1994	0.00	0.00	0.00	0.00	0.39	7.56	8.44	7.44	3.88	0.00	0.00	0.00	27.72
1995	0.00	0.00	0.00	0.00	0.00	2.95	8.06	7.71	3.96	0.00	0.00	0.00	22.68
1996	0.00	0.00	0.00	0.00	0.18	6.59	8.30	7.32	4.23	0.00	0.00	0.00	26.62
1997	0.00	0.00	0.00	0.00	0.16	6.45	8.43	6.96	5.18	1.72	0.00	0.00	28.90
1998	0.00	0.00	0.00	0.70	5.95	6.94	8.38	7.29	5.57	0.55	0.00	0.00	35.38
1999	0.00	0.00	0.00	0.00	1.52	6.20	7.29	5.80	3.93	0.00	0.00	0.00	24.74
2000	0.00	0.00	0.00	0.00	2.20	6.76	7.70	6.68	3.85	0.00	0.00	0.00	27.19
2001	0.00	0.00	0.00	0.00	0.61	6.53	7.64	6.27	4.66	0.69	0.00	0.00	26.40
2002	0.00	0.00	0.00	0.00	0.46	7.08	8.51	7.21	4.78	1.47	0.00	0.00	29.50
2003	0.00	0.00	0.00	0.00	3.10	6.51	8.82	7.01	2.11	0.00	0.00	0.00	27.55
2004	0.00	0.00	0.00	0.00	4.62	6.50	7.11	6.32	4.73	1.37	0.00	0.00	30.65
2005	0.00	0.00	0.00	0.00	0.04	5.74	8.41	6.42	5.07	2.54	0.00	0.00	28.22
2006	0.00	0.00	0.00	0.00	3.19	7.59	7.68	6.32	4.29	1.86	0.00	0.00	30.93
2007	0.00	0.00	0.00	0.23	4.99	7.18	7.88	6.93	4.97	1.01	0.00	0.00	33.18
2008	0.00	0.00	0.00	0.00	3.91	7.21	8.20	6.54	4.61	1.63	0.00	0.00	32.10
2009	0.00	0.00	0.00	0.75	5.48	6.36	7.27	6.76	4.50	0.22	0.00	0.00	31.33
Average	0.00	0.00	0.00	0.07	2.12	6.67	8.01	6.88	4.66	1.14	0.00	0.00	29.56

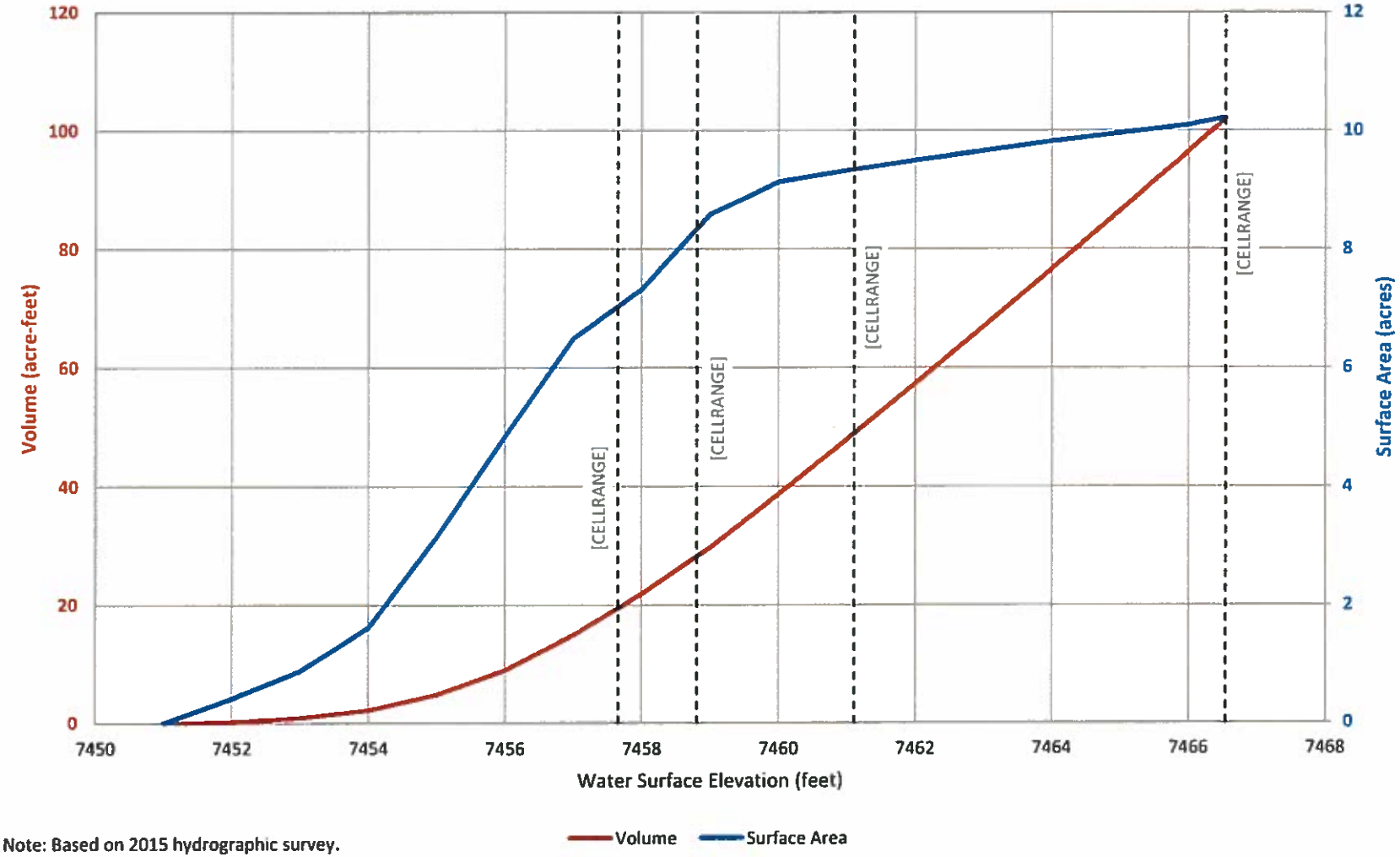
Sources:

Hargreaves, G.L., Hargreaves, G.H., and Riley, J.P. 1985. Agricultural benefits for Senegal River Basin. J. Irrigation and Drainage Engr., ASCE 111:113-124.

Allen, R.G. and Robison, C.W., April 2007. Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho, University of Idaho.

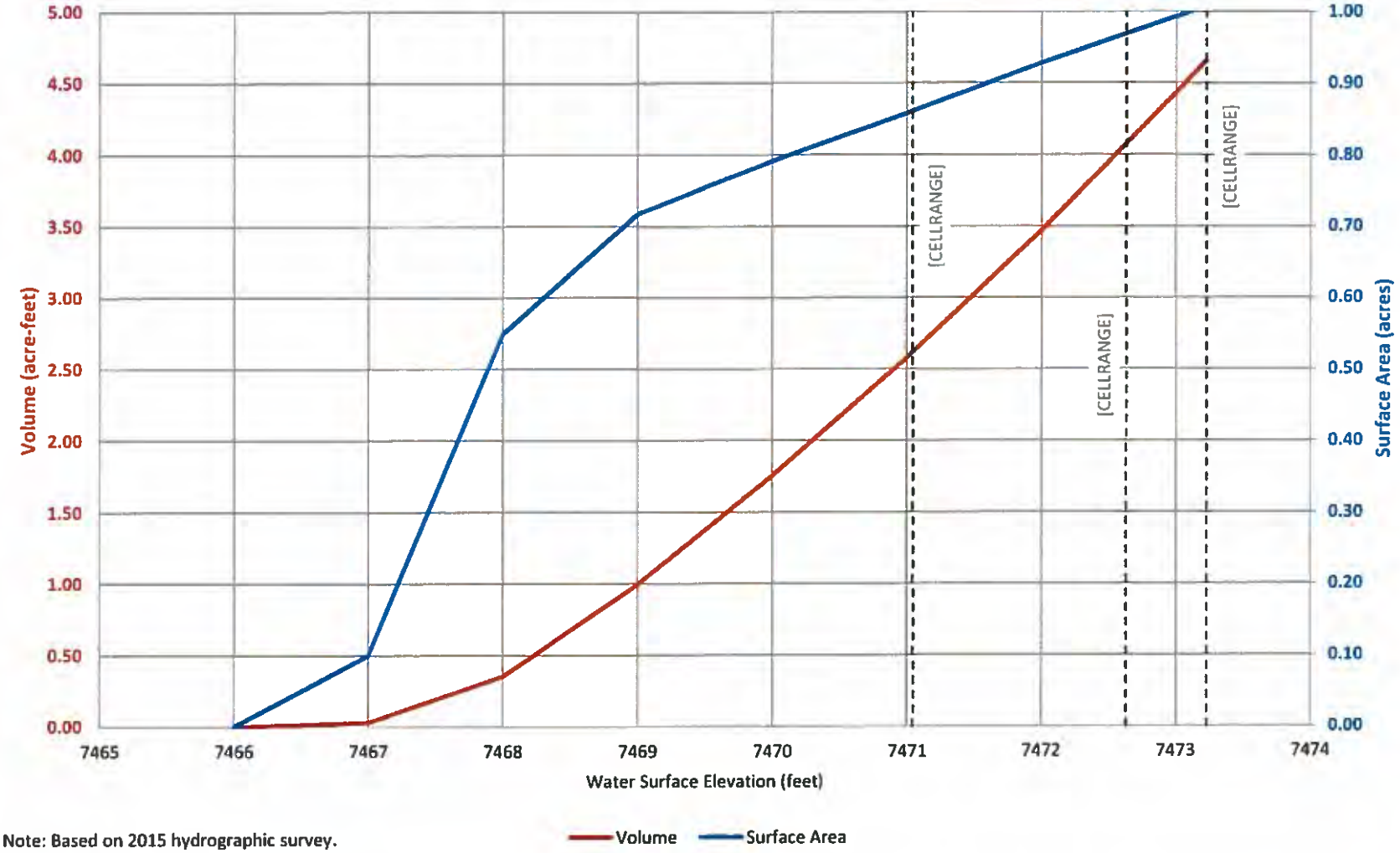
Appendix E
Stage-Area-Capacity Curves

Elevation - Area - Capacity
Watson Lake
Rainbow Falls Mountain Trout, Inc.



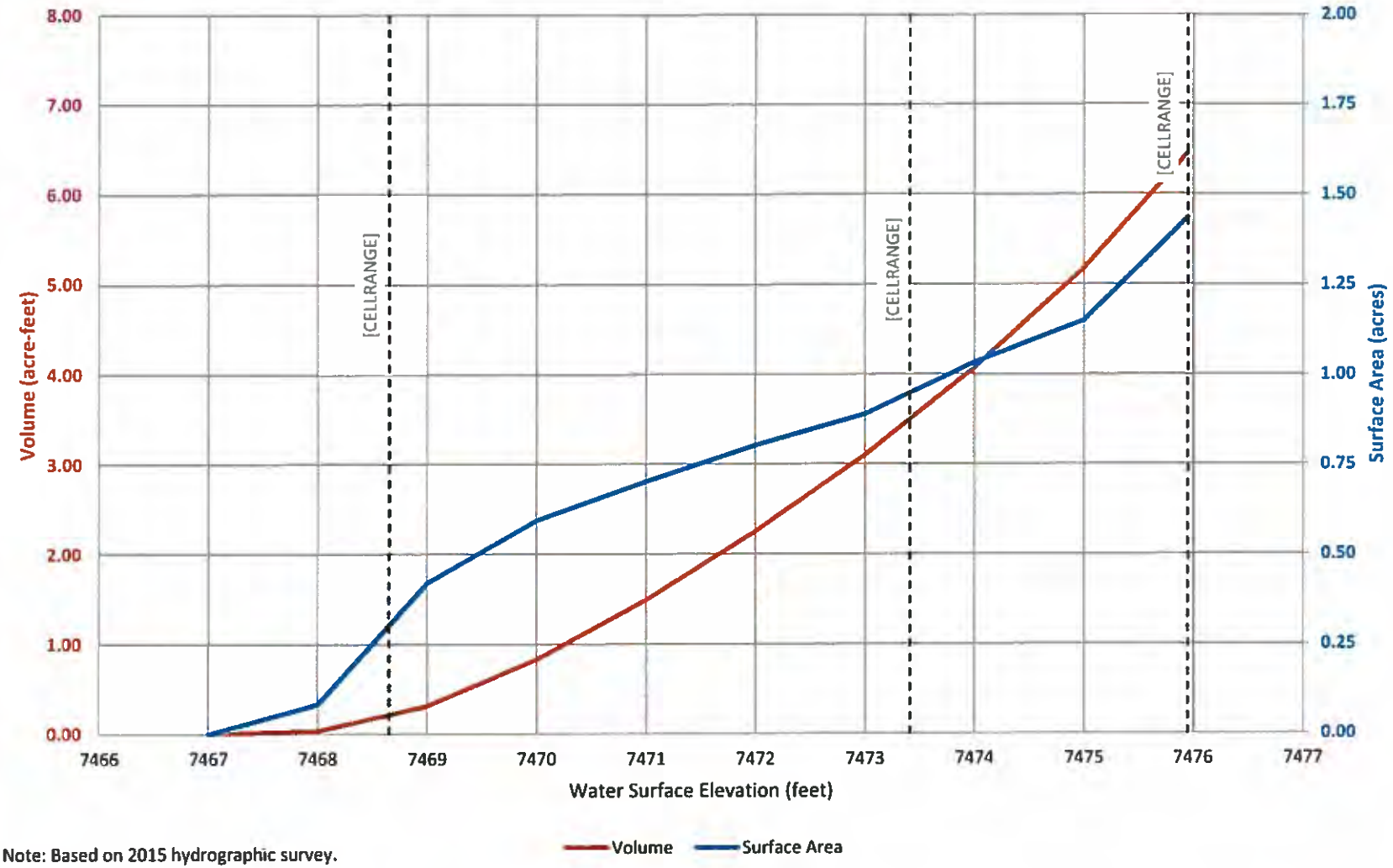
Note: Based on 2015 hydrographic survey.

Elevation - Area - Capacity
Spring Lake
Rainbow Falls Mountain Trout, Inc.



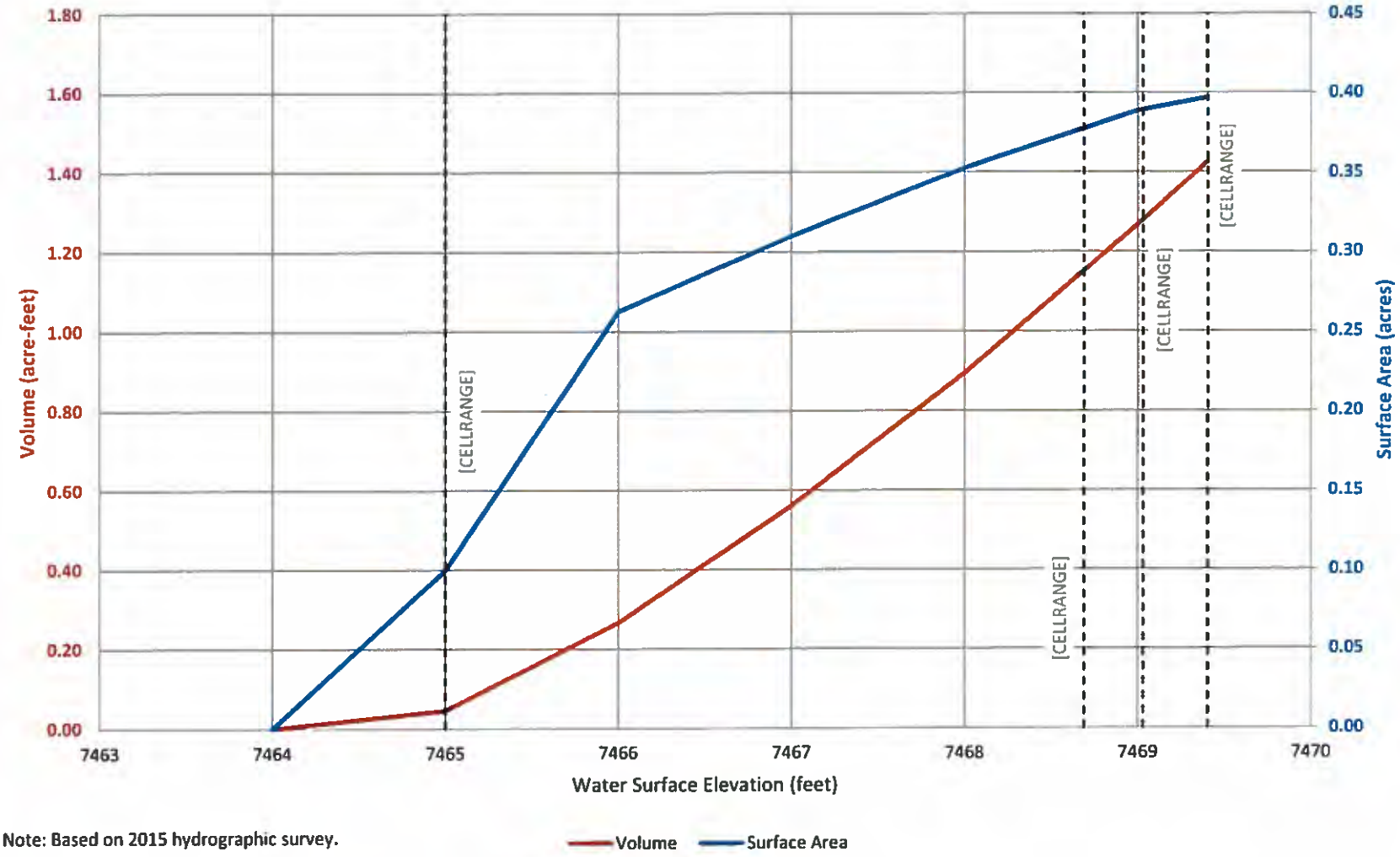
Note: Based on 2015 hydrographic survey.

Elevation - Area - Capacity
Trout Creek Lake
Rainbow Falls Mountain Trout, Inc.



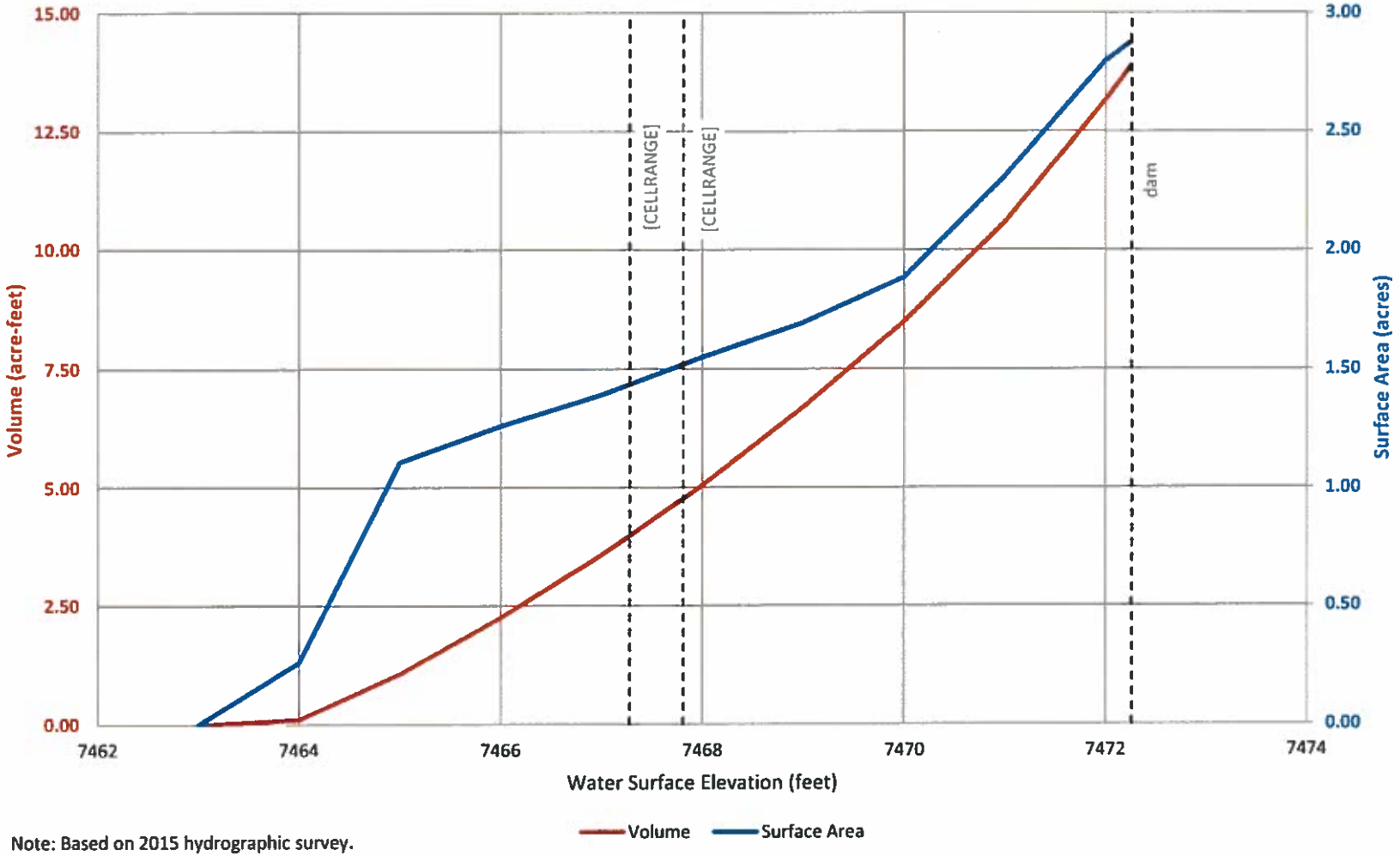
Note: Based on 2015 hydrographic survey.

Elevation - Area - Capacity
Eagle Lake
Rainbow Falls Mountain Trout, Inc.



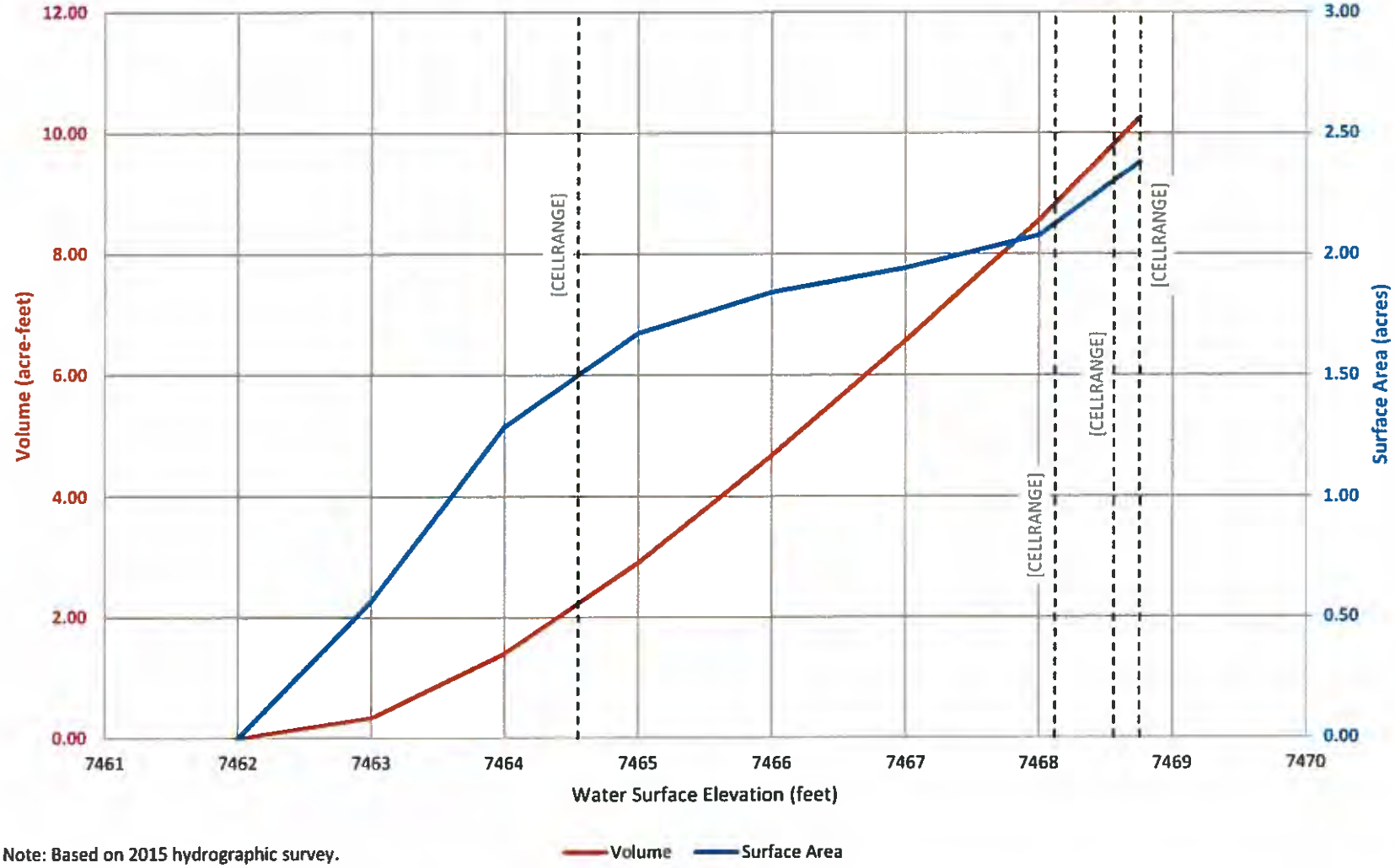
Note: Based on 2015 hydrographic survey.

Elevation - Area - Capacity
Palmer Lake
Rainbow Falls Mountain Trout, Inc.



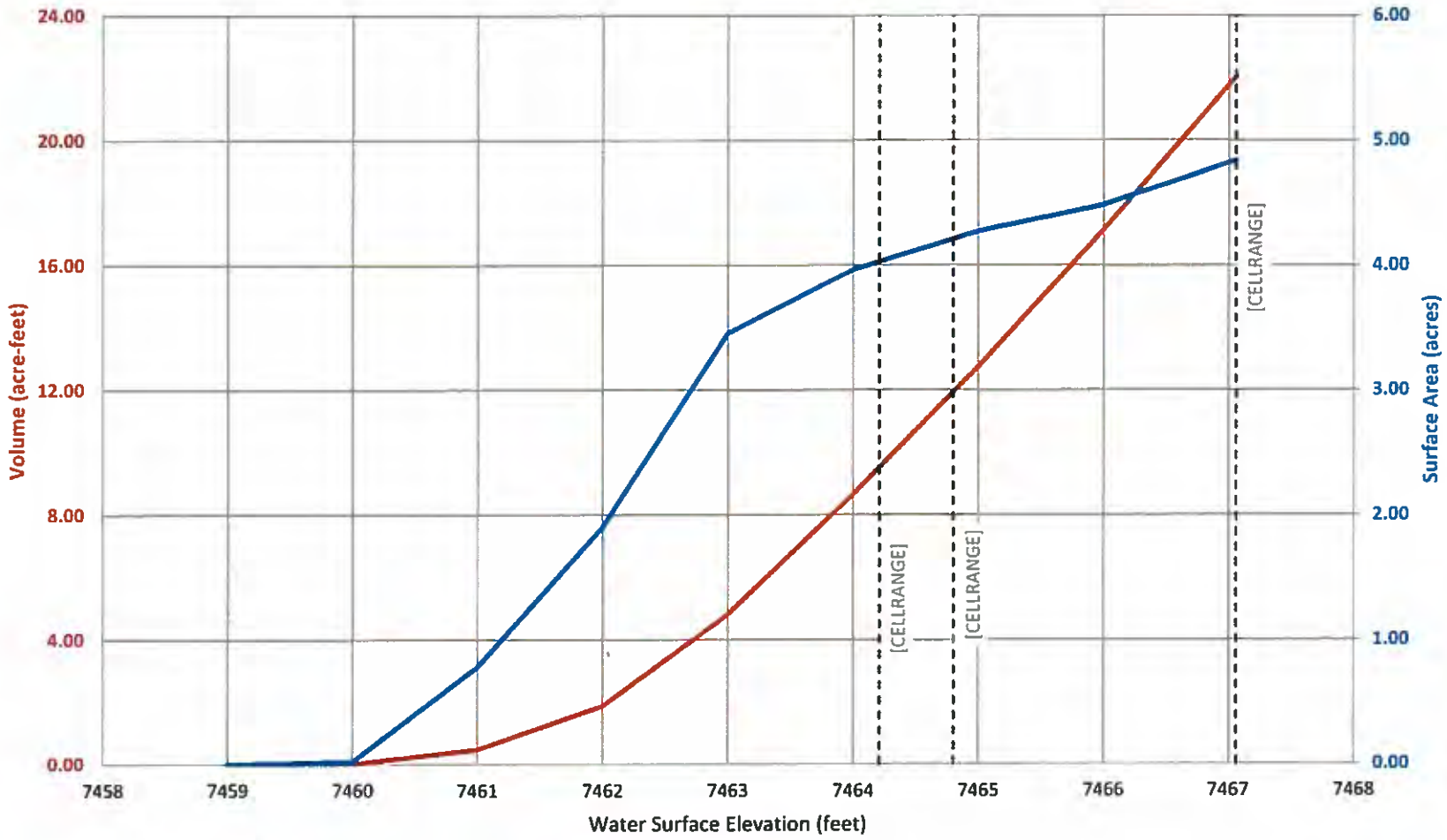
Note: Based on 2015 hydrographic survey.

Elevation - Area - Capacity
Elk Lake
Rainbow Falls Mountain Trout, Inc.



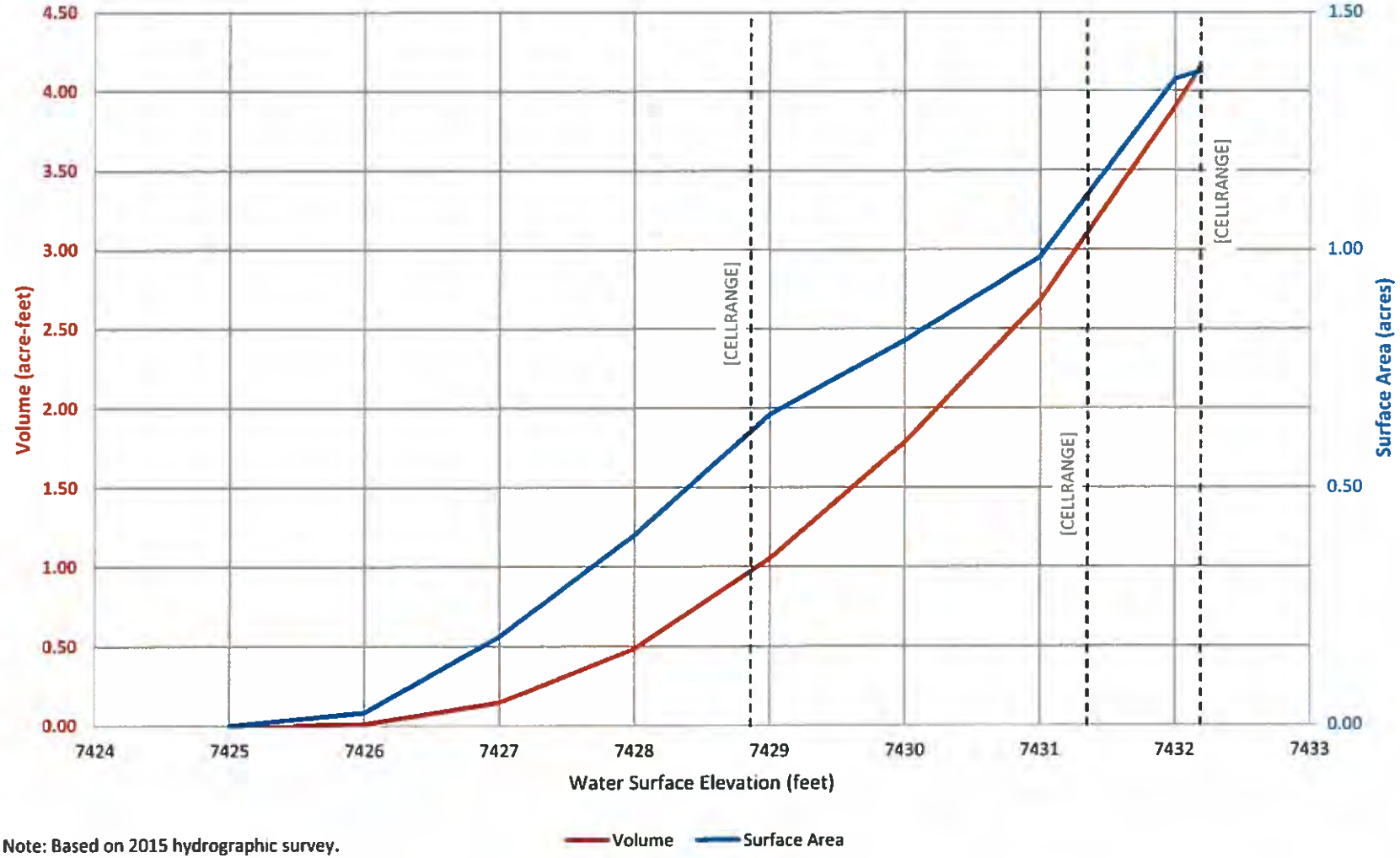
Note: Based on 2015 hydrographic survey.

Elevation - Area - Capacity
Ute Lake
Rainbow Falls Mountain Trout, Inc.



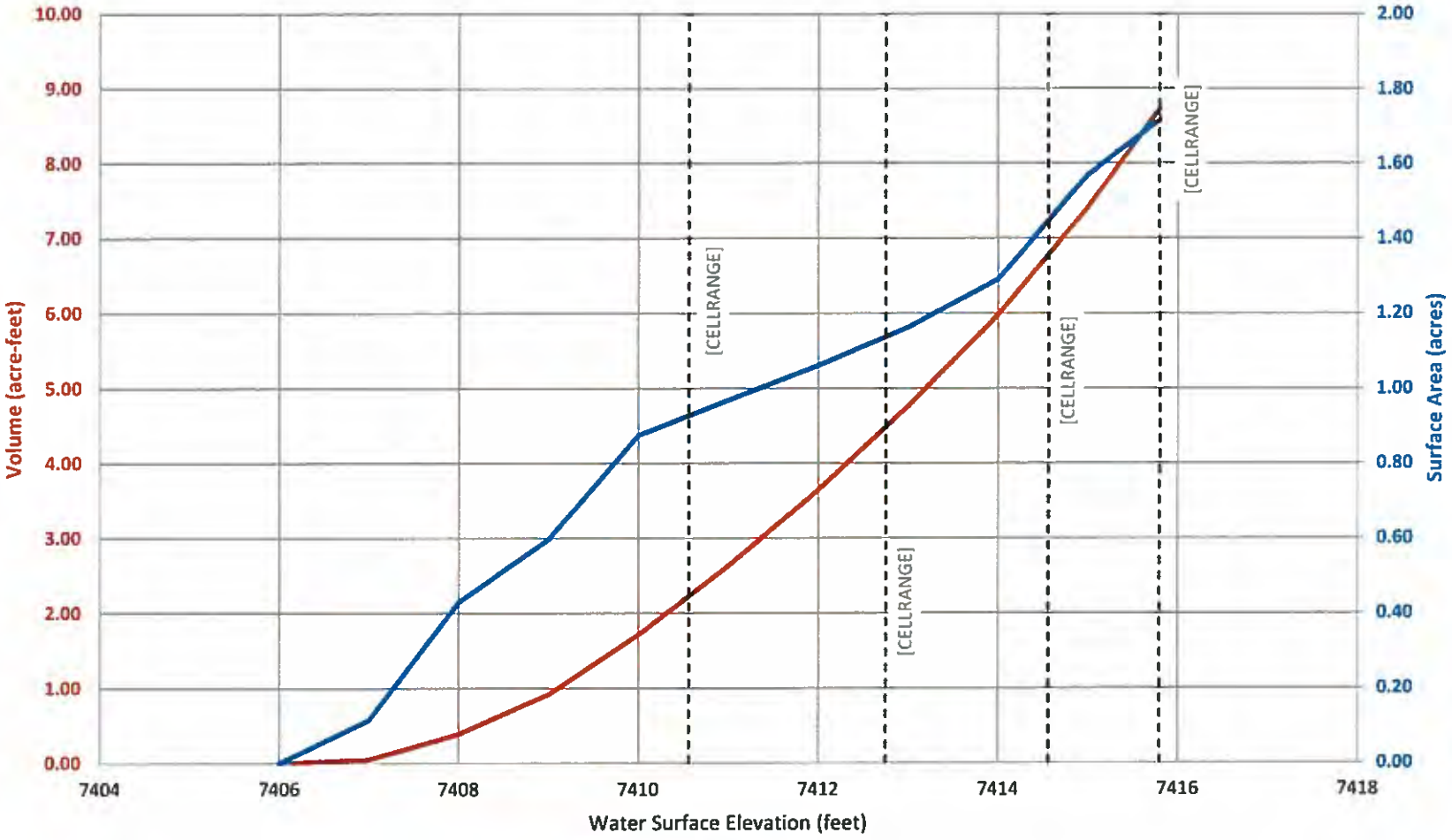
Note: Based on 2015 hydrographic survey.

Elevation - Area - Capacity
Bear Lake
Rainbow Falls Mountain Trout, Inc.



Note: Based on 2015 hydrographic survey.

Elevation - Area - Capacity
Cougar Lake
Rainbow Falls Mountain Trout, Inc.



Note: Based on 2015 hydrographic survey.

AGREEMENT

This Agreement is entered into this 15 day of August, 2016 by and between the City of Woodland Park ("City"), whose address is P.O. Box 9007, Woodland Park, CO 80866 and Rainbow Falls Mountain Trout, Inc. ("Rainbow Falls"), whose address is P.O. Box 279, Woodland Park, CO 80866 and their successors and assigns.

RECITALS

A. The City operates an augmentation plan pursuant to which is often has excess water that is not yet needed by the City but that is in stream.

B. Rainbow Falls operates several reservoirs, a fish hatchery, residences, a lodge, and some irrigation on property as more fully described in that application in Case No. 15CW3183, a copy of which is attached hereto as Exhibit A.

C. The City has in the past sold to Rainbow excess City augmentation water for a temporary period under restricted conditions that Rainbow Falls has used for replacement of stream depletions pursuant to substitute water supply plans for those structures described in Exhibit 1.

D. The parties desire to enter into a lease of excess City augmentation water for longer period.

For and in consideration of the covenants provided for in this Agreement, the parties agree as follows:

1. The City agrees to lease to Rainbow Falls, and Rainbow Falls agree to lease from the City fully consumable water as described herein.

2. The term of this Agreement shall be for ten years from the date of this Agreement, unless terminated pursuant to the terms of this Agreement.

3. The City will make the leased water available to Rainbow Falls and may be used only for replacement of depletions associated with the structures described in Exhibit 1. Rainbow Falls may not include the water leased pursuant to this Agreement in any plan other than that plan described in Exhibit 1 or a substitute water supply plan requested related thereto an operated by Rainbow Falls.

4. The water that the City leases Rainbow Falls pursuant this Agreement shall be that excess water which is often discharged to Trout Creek through the City's normal operations of its water sources and its water and wastewater systems. The City's sources of fully consumable augmentation water which may be available pursuant to this Agreement are the City's shares in the Twin Lakes Reservoir Company, the Colorado Canal Company, the Lake Meredith Reservoir Company, and the Lake Henry Reservoir Company. The City's augmentation water is imported to the Woodland Park water system pursuant to a 99-year water conveyance agreement with the City of Colorado Springs. Such imported water is used in the City of Woodland Park municipal water system and discharged to Trout Creek through the City's wastewater treatment plant. There shall be no obligation of the City to try to produce excess augmentation water to meet augmentation needs of Rainbow Falls, and the City shall not be liable directly or indirectly for its inability to produce augmentation water in any given month. On a month-to-month basis the City will not know if it has excess augmentation water to sell to Rainbow Falls for any specific month until after that month is completed, and all accounting has been completed. Typically

this will be 7 to 12 days into the subsequent month. It shall be the sole responsibility of Rainbow Falls to develop and gain approval of storage rights, a Substitute Water Supply Plan, and any other augmentation or replacement plan that can utilize such after-the-fact reporting of excess augmentation water available for Rainbow Falls purchase and use.

5. The City's shall deliver any water available for lease pursuant to this Agreement at the discharge from the City's wastewater treatment plant to Trout Creek, being located in the SE¼ SW¼ Sec 2, T12S, R69W of the 6th PM, Teller County, Colorado. Any transit losses, exchanges or other requirements needed to make this water usable for Rainbow Falls' purposes shall be the responsibility of Rainbow Falls. The City shall not be responsible for any measurement or movement of such water after it has been delivered pursuant to this Agreement. The City is not guaranteeing any time schedule for availability or any rate of delivery of the water at any given time.

6. The City makes no guarantee or warranty that the water is acceptable for any use, that the quantity or quality of the water including the presence or absence of any particular water quality constituent is acceptable for any use, except to guarantee that the leased water is fully consumable. Rainbow Falls shall be solely responsible for providing any water treatment necessary for the water to meet its needs.

7. Upon the completion of each month and the City's draft completion of its combined monthly augmentation report for Case No. 86CW376 and Case No. 2002CW254, the City shall report to Rainbow Falls by email the amount, if any, of excess augmentation water it has available for Rainbow Falls to lease. Within three (3) days of this email Rainbow Falls shall respond to the City by email how much, if any, of such the water Rainbow Falls chooses to purchase. The City shall report to the District 8 Water Commissioner and to Water Division 1 on the City's monthly augmentation report, the amount of water it has leased to Rainbow Falls.

8. The City shall charge Rainbow Falls and Rainbow Falls shall pay the City $3.50 per thousand gallons ($1140.48/acre foot) of water leased pursuant to this Agreement. The City will adjust pricing annually based on their Consumer Price Index, up to a maximum of 25% per year. Any volume less than 0.01 acre foot leased to Rainbow Falls in any month shall be rounded up to 0.01 acre foot to calculate charges and shall be reported as 0.01 acre foot on the City's monthly report.

9. The City shall invoice Rainbow Falls monthly for water leased pursuant to this agreement, except the City may aggregate small amounts until they accumulate to at least $50. Rainbow Falls shall pay the City within 30 days of the date of each invoice. If Rainbow Falls fails to pay any invoice as required, the City may deem this agreement as terminated immediately, without further notice.

10. Rainbow Falls shall be responsible for obtaining approval of any plan necessary for its use of the water leased pursuant to this Agreement. The City will answer questions or supply reasonable information regarding its lease of water pursuant to this Agreement. If the water leased pursuant to this Agreement City's is approved for use in a Rainbow Falls Substitute Water Supply Plan or augmentation plan, the City and Rainbow Falls shall provide copies to each other of each monthly report upon submittal to the State.

11. This agreement provides for the possible month-to-month lease of a variable volume of water to support Rainbow Falls' Substitute Water Supply Plan or augmentation plan. It shall not be misinterpreted as a long-term source of augmentation water for Rainbow Falls. This agreement does

not transfer or title or ownership of water rights or water shares, nor does it guarantee any volume of water will be available during the term of the agreement.

12. The City retains any and all rights to the water leased pursuant to this Agreement should it not be needed for the leased purposes.

13. Rainbow Falls may not change in any way any decree, permit, license, agreement or element of or related to the water or the water rights from which the water is derived. Rainbow Falls shall comply with all applicable statutes, rules and regulations and lawful administrative orders regarding the transportation and use of the water. Rainbow Falls shall be responsible for all accounting pertaining to its use of the water after it is delivered pursuant to this Agreement.

14. The welfare of the City and its inhabitants requires a stable water supply not only for its citizens but also for the other water customers of the City. The extent to which limitation of water delivery outside the city limits of the City may be necessary to enable the City to provide adequately for users inside the City limits. This is a fact to be determined by the City in the exercise of its reasonable discretion from time to time as occasion may require. It is the purpose of the City to maintain a water supply adequate to meet the needs of the City and customers within the city limits. The parties recognize that the water supply for the City and its water customers is dependent upon sources from which the supply is variable in quantity and beyond the control of the City. No liability in tort or contract attaches to the City hereunder on account of any failure to accurately anticipate availability of water supply or because of an actual failure to supply water due to inadequate runoff or inadequate storage arising from an occurrence beyond the reasonable control of the City, including, but not limited to, act of God, strike, war, insurrection, or inability to serve arising out of the order of any court, or the lawful order of any governmental entity with authority to regulate matters pertaining to water, public utilities, public health, or pollution control.

15. From time to time emergency or shortage situations may arise where there is a necessity to limit the use of water for lessees of the City. The necessity for such limitation is a fact to be determined by the City in the exercise of its reasonable discretion from time to time, as occasion may require. It is hereby agreed that the City may adopt such reasonable restrictions on uses or priorities for use, as may be necessary to adapt to such emergency conditions or shortage. Rainbow Falls agree that no liability in tort or contract attaches to the City hereunder on the account of the necessity for adopting and implementing such policies to meet emergency conditions or shortage. The City may terminate this Agreement, or temporarily interrupt this Agreement and the delivery of water thereunder should the water be needed by the City. The City shall provide Rainbow Falls with as much notice prior to any termination or interruption as is practicable.

16. Rainbow falls agrees to and shall indemnify, defend, save and hold harmless the City and its officers, employees and agents, against any and all claims, damages, liability and court awards including costs, expenses and attorney's fees, incurred as a result of any alleged negligent act or omission by the Rainbow Falls related to the use of the water.

17. Notwithstanding any provisions of this Agreement to the contrary, no term or condition of this Agreement shall be construed or interpreted as a waiver, either expressed or implied, of the monetary limitations on liability or any of the immunities, rights, benefits or protections provided to the City under the Colorado Governmental Immunity Act, § 24-10-101, et seq. C.R.S., as it shall be amended from time to time.

18. Any and all notices, demands or the communications desired or required to begin under any provision of this Agreement shall be given in writing and delivered personally, by email, or by first class mail addressed to the addresses stated above, or to such other address as either party may designate from time to time, by written notice, to the other party.

19. This Agreement may be modified, amended, or changed in whole or in part only by an agreement in writing duly authorized and executed by both.

19. Waiver of any breach of the provisions of this Agreement by either party shall not constitute a continuing waiver of any subsequent breach of said party of either the same or any other provision of this Agreement.

20. Neither party may assign its rights or delegate its duties under this Agreement without the prior written consent of the other party.

21. Enforcement of the terms and conditions of this Agreement, and all rights and actions relating to such enforcement, shall be strictly reserved to the City and Rainbow Falls and nothing contained in this Agreement shall give or allow any claim or right of action by any other or third person to such agreement. The parties do not intend for any other person to be deemed to be a third-party beneficiary.

22. This Agreement shall be construed and enforced in accordance with the laws of the State of Colorado.

23. The venue for any court action which might occur in connection with or as a result of this Agreement shall be the District Court in and for Teller County, Colorado.

24. Neither party may record this Agreement. Both Parties expressly agree that this Agreement may be referenced, included, or otherwise incorporated in any application for permission or approval or grant of permission or approval that is required by or appropriate pursuant to this Agreement.

25. If either party is in default the non-defaulting party may elect to treat this Agreement as terminated, in which case the non-defaulting party may recover damages limited to breach of contract only. Specific performance will not be available as a remedy.

26. In the event of litigation or other dispute resolution process arising out of this Agreement the prevailing party shall be awarded its costs and expenses including attorneys' fees.

27. This Agreement consists of the terms and conditions stated herein and is the entire agreement between the parties. No other documents related to this Agreement or generated as a result of this Agreement shall form a part of this Agreement unless it is expressly referenced and incorporated herein.

28. If any portion of this Agreement is held invalid or unenforceable for any reason by a court of competent jurisdiction as to either party or as to both parties, all other provisions shall remain effective to the extent allowed by law.

29. This Agreement shall never constitute a general obligation or other indebtedness of the City, or a multiple fiscal year direct or indirect debt or other financial obligation whatsoever of the City within the meaning of the Constitution and laws of the State of Colorado.

City of Woodland Park Attest:

By: _____ City Clerk

Rainbow Falls Mountain Trout Inc.

By: _____

Richard A. Johnson pres.

ADMINISTRATION PROTOCOL
Augmentation Plan Accounting
Division One – South Platte River

This protocol establishes the accounting and reporting process required to enable the division engineer's office to confirm that depletions from all out-of-priority diversions are being replaced so as to prevent injury to vested water rights. The accounting must comport with established "cradle to grave" accounting standards, which allow an audit of the information to track exactly how the data is manipulated as it is translated from raw input data to the resultant impact on the river. While this protocol is subordinate to any decreed language addressing specific accounting requirements, it generally addresses the minimum requirements of such accounting.

The accounting must use the standard convention where a depletion is "negative" and an accretion or other replacement source is "positive". The sum of the impacts will then result in either a "negative" or "positive" impact on the stream.

Wells in plans that have a negative stream impact must provide additional replacement water, curtail pumping or both until the impact is no longer negative. Plans with a negative stream impact that fail to curtail pumping will be ordered to stop pumping until such time as the projected impact of the wells is no longer negative.

1. Accounting must be submitted electronically to the water commissioner (call 970-352-8712 to obtain email address) and division engineer at Div1Accounting@state.co.us within 30 days of the end of the month for which the accounting is being submitted.
2. The accounting must provide the **contact information** including name and address for:
    a. the owner(s) of each well
    b. the person responsible for submitting the accounting
    c. the plan administrator and/or the plan attorney.
3. All **input data** must be in one location, such as an "Input" worksheet, etc. The accounting must show all pumping. Input data includes the information listed below.
    a. The required input data for each **well** is:
        i. the monthly meter reading for wells that use a **presumptive depletion factor** (PDF) to determine the associated consumptive use (CU); or
        ii. the monthly CU in acre-feet (AF) for wells that have a decree or approved SWSP that allows the wells to use a **water balance methodology** to determine the CU of the well. The analysis used to determine the CU must be included with the accounting.
        iii. Wells that are decreed as an **alternate point of diversion** (APOD) to a surface water right must report pumping on a daily basis if any of the diversion during the month is claimed as being "in priority". (See *Administration Protocol – APOD Wells* for more details.)

iv. The well meter serial readings for each meter shall be included if there is more than one meter on a well.

b. Each **recharge site** must comply with the *Administration Protocol - Recharge* and must report the:

i. daily volume in AF diverted into the site;

ii. monthly volume in AF released from the site;

iii. monthly net evaporative loss in AF;

iv. volume of water in AF remaining at the end of the month.

c. The accounting must identify each source of **fully consumable replacement water** actually delivered to the location impacted by the depletions. To demonstrate the water was actually delivered to the required location will require the following information:

i. the originating source of the water, date released and volume of water released;

ii. transportation losses to point of diversion or use, if any, using stream loss factors approved by the water commissioner;

iii. the volume of water actually delivered on a daily basis past any surface water diversion that was sweeping the river as corroborated by the water commissioner.

(See *Administration Protocol – Delivery of Water* for more details on delivering water.)

d. For each source of **replacement water that has been "changed"** for use as a source of augmentation, such as changed reservoir shares, ditch bypass credits or credits from dry-up, etc., the following input information must be reported:

i. the basis and volume of the return flow obligation;

ii. the location the changed water was historically used; this will be the location used to determine the timing of the return flow impact on the river.

4. The accounting must include a monthly **projection** of the plan's operation at least through March 31 of the next calendar year.

5. The accounting must include all input and output files associated with **modeling the delayed impact** of diversions. The output from the modeling must report to a summary table that shows, by month, the ongoing depletions associated with pumping, return flow obligations, etc. and accretions from recharge operations.

6. A **net impact** summary must show the out-of-priority depletions, accretions from each recharge site, volume of replacement water actually delivered to the location of the depletions and the resultant net impact on **a daily basis**. If necessary, the net impact must be done by river reach.

   While **modeling** may use a **monthly step function** to determine the depletions from pumping and accretions from recharge, the monthly result must then be **divided by the number of days in the month** in order to **simulate a daily impact**, as water rights are administered on a daily and not monthly basis.

Replacement water must be provided such that the **daily net impact** (using the simulated daily numbers from the modeling) **is not negative.** If a well is out-of-priority for 15 days during a month, replacement must be made only for the 15 days the well is out-of-priority. The replacement must be made, however, on a daily basis as opposed to, for instance, making an aggregated release equal to the volume of the out-of-priority depletions. Likewise, the simulated daily accretion will only count toward replacing the depletion on the days the well is out-of-priority. The accretions that report to the river when the well is in priority cannot be used to replace the out-of-priority depletions.

The **accretions that impact the river when the well is in priority** are not considered "excess" unless the cumulative net impact of the well is not negative for the entire irrigation year to date. (The irrigation year for this purpose is April 1 thru the following March 31.) Until such time as the cumulative net impact is not negative, the accretions must simply be released to the river and cannot be leased to other plans or recaptured. Plans that show a positive cumulative net impact are still required to make replacements on a daily basis; the cumulative analysis only effects whether or not accretions reporting to the river when the well is in priority are considered "excess" and are, therefore, able to be recaptured.

7. The basis for determining that the depletions are **out-of-priority** must be clearly established and all steps in the calculation included in the accounting. The analysis may be done, unless otherwise limited by decree, for each well or groups of wells, provided the most junior water right associated with the group of wells is used as the reference water right for the group's out-of-priority status.

8. Accounting must include **actual information** for the irrigation year through the month for which the accounting is being submitted **AND projections** of the plan operation through March 31 of the next calendar year.

9. The following **naming convention** must be used for all files submitted pursuant to item 1:

   "Plan**WDID**_YYMMDD"

   where: PlanWDID is the WDID assigned by the division engineer's office
   YYMMDD corresponds to the date the accounting is submitted.

   As an example, the assigned WDID for the former GASP plan was 0103333. If accounting using Excel® was submitted for that plan on May 15, 2004, the file name would be:

   "0103333_040515.xls"

   The name of the file must be in the subject line of the email.

10. All accounting must be reported using the **WDID** for the structure, at a minimum. Other information such as well name, permit number, etc. may also be included as desired. <u>All wells must be decreed by the water court, permitted by the state engineer or included in a decreed plan for augmentation</u>. Unregistered and undecreed wells cannot, in the opinion of the division engineer, be effectively administered because of the need to know the location, allowable diversion rate and use of the well - information that is only available from the decree or permitting process.

11. If a well is covered in multiple SWSP's or augmentation plans, the monthly meter readings must be the same in the accounting for each plan covering the subject well. The accounting for every plan covering the well shall state the proportionate pumping amount covered by each plan to assure all out-of-priority depletions are replaced.

12. The following additional accounting is required for sources of replacement water used for more than one plan. The water right owner of the replacement water is responsible for accounting for the total replacement amount and how much each plan is using of that total amount. The accounting for portions of the replacement water by other users must match the accounting of the water right owner. The amount of replacement water used by the water right owner and other users together shall not exceed the total replacement amount available.

    (See *Administration Protocol – Use Of Unnamed Sources For Replacement* for additional requirements concerning required notice and approval of sources of replacement not specifically described in a SWSP or augmentation plan)

STATE OF COLORADO
DEPARTMENT OF NATURAL RESOURCES
COLORADO PARKS AND WILDLIFE

Commercial Lake License

2017

Valid From: **1/1/2017**
Valid Through: **12/31/2017**

License Number: **17CL410**

Corporate Name: **RAINBOW FALLS MOUNTAIN TROUT, INC.**
Name: **JOHNSON, RICHARD A.**
Mailing Address: **P.O. Box 279**
City, State, Zip: **Woodland Park, CO 80866**

Location		County	Legal Description - TRS		
Rainbow Falls	14000 Rainbow Falls Rd., Sedalia, CO	Douglas	10S	69W	21

Species Authorized

Rainbow Trout	Oncorhynchus mykiss
Brook Trout	Salvelinus fontinalis
Brown Trout	Salmo trutta

Restriction(s) if applicable

Current regulations are available on the internet at: http://cpw.state.co.us/aboutus/Pages/Regulations.aspx under Chapters W-00 and W-12.

Amendment Details (if applicable):

By: *Special Licensing, CPW*

NOTE: Non-commercial licenses do not expire.

ORIGINAL - Licensee

1st COPY - File

DISTRICT COURT, WATER DIVISION 1, STATE OF COLORADO Weld County Courthouse 901 9th Avenue P.O. Box 2038 Greeley, Colorado 80632 (970) 475-2510	DRAFT 11-30-2016
Concerning the Application for Water Rights of: **RAINBOW FALLS MOUNTAIN TROUT INC.,** a foreign corporation, in Douglas County.	▲ COURT USE ONLY ▲ Case Number: **15CW3183**

FINDINGS AND RULING OF THE REFEREE AND DECREE OF THE WATER COURT

THIS MATTER comes on for consideration by the Water Referee upon the Application for Water Storage Rights, Surface Water Rights and for Approval of a Plan for Augmentation. The Application was filed on December 31, 2015, and a Corrected Application was filed January 7, 2016 (collectively "Application"), on behalf of Rainbow Falls Mountain Trout Inc. in Douglas County.

All matters contained in the application were reviewed, and testimony was taken where such testimony was necessary and such corrections made as were indicated by the evidence presented. The Referee, being fully advised in the premises, does hereby find:

FINDINGS OF FACT

1. The name and address of the Applicant is:

Rainbow Falls Mountain Trout Inc.
P.O. Box 279
Woodland Park, CO 80866

2. Timely Statements of Opposition to the Application were filed by the City and County of Denver, Colorado Water Conservation Board and Headwater Authority of the South Platte.

3. Timely and adequate notice of the pendency of these proceedings in rem has been given in the manner required by law. This court has exclusive jurisdiction over the subject matter of these proceedings and over all who have standing to appear as parties whether they have appeared or not.

4. The land and water rights involved herein are not included within the boundaries of any designated ground water basin.

5. The Division Engineer provided his Summary of Consultation to the Application on March 31, 2016.

6. The purpose of this application is to adjudicate water storage rights, surface water rights, and a plan for augmentation for Rainbow Falls Mountain Trout Inc., which operates a commercial fish culture facility and fishing club on 101 acres adjacent to Trout Creek in Douglas County, Colorado. The property and fish culture facilities were originally developed in the late 1800s as a part of the Manitou Park south of Woodland Park, Colorado. A map showing the locations of the water rights and structures in this application is attached as Exhibit A. Also depicted on Exhibit A are the anticipated sites for the lodge and residences described herein, the land to be irrigated, locations where return flows accrue to stream from these uses, and the actual location of Big Spring Creek.

7. Applicant owns the land underlying the lakes described herein, and the surface water rights claimed herein, and has entered into a lease with the City of Woodland Park to provide replacement and augmentation water.

8. Applicant requests that this court decree the water storage right and surface water rights, in conjunction with the approval of the claimed plan for augmentation.

9. Applicant has entered into the following Stipulations and Agreements:

ADJUDICATION OF WATER STORAGE RIGHTS

Applicant claims the following water storage rights ("Water Storage Rights"), collectively referred to herein as "Water Storage Rights" or "Reservoirs." Each reservoir is on-channel.

10. Name of Reservoir: Ute Lake

A. Legal Description: Located on both Trout Creek and Big Spring Creek in the NE ¼ of the SW ¼ and the SE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the NE ¼ of the SW ¼ of said Section 21, at a point 1570 feet from the South line and 1990 feet from the West line of said Section 21 (NAD 83 UTM 13N 489722.7E 4334935.0N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 09/04/1956
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use: 09/04/1956

C. Amount Claimed: 17.57 acre-feet, absolute, with the right of continuous refills totaling 17.57 acre-feet in a given year

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation

E. Surface area of high water line: 4.51 acres

F. Total capacity of reservoir: 17.57 acre-feet

11. Name of Reservoir: Elk Lake

A. Legal Description: Located on Big Spring Creek in the SE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Big Spring Creek in the SE ¼ of the SW ¼ of said Section 21, at a point 1150 feet from the South line and 1690 feet from the West line of said Section 21 (NAD 83 UTM 13N 489631.3E 4334787.3N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 07/07/1953
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use: 07/07/1953

C. Amount Claimed: 8.82 acre-feet, absolute, with the right of continuous refills totaling 8.82 acre-feet in a given year.

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation

E. Surface area of high water line: 2.12 acres

F. Total capacity of reservoir in acre-feet: 8.82 acre-feet

12. Name of Reservoir: Eagle Lake

A. Legal Description: Located on Big Spring Creek in the SE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Big Spring Creek in the SE ¼ of the SW ¼ of said Section 21, at a point 750 feet from the South line and 1920 feet from the West line of said Section 21 (NAD 83 UTM 13N 489703.9E 4334683.8N)

B. Source: Trout Creek and Big Spring Creek

1) Date of appropriation: 07/07/1953
2) How appropriation was initiated: Construction and filling of lake
3) Date water applied to beneficial use: 07/07/1953

C. Amount Claimed: 1.21 acre-feet, absolute, with the right of continuous refills totaling 1.21 acre-feet in a given year

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation

E. Surface area of high water line: 0.38 acres

F. Total capacity of reservoir in acre-feet: 1.19 acre-feet

13. Name of Reservoir: Palmer Lake

A. Legal Description: Located on Trout Creek in the SE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the SE ¼ of the SW ¼ of said Section 21, at a point 1030 feet from the South line and 2220 feet from the West line of said Section 21 (NAD 83 UTM 13N 489794.9E 4334769.9N)

B. Source: Trout Creek and Big Spring Creek
1) Date of appropriation: 10/03/1975
2) How appropriation was initiated: Construction and filling of lake
3) Date water applied to beneficial use: 10/03/1975

C. Amount Claimed: 10.17 acre-feet, absolute, with the right of continuous refills totaling 10.17 acre-feet in a given year

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation

E. Surface area of high water line: 2.23 acres

F. Total capacity of reservoir in acre-feet: 10.17 acre-feet

14. Name of Reservoir: Trout Creek Lake

A. Legal Description: Located on Trout Creek in the SE ¼ of the SW ¼ of Section 21 and the NE ¼ of the NW ¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in

the SE ¼ of the SW ¼ of said Section 21, at a point 320 feet from the South line and 2160 feet from the West line of said Section 21 (NAD 83 UTM 13N 489787.3E 4334555.5N)

B. Source: Trout Creek and Big Spring Creek
1) Date of appropriation: 07/07/1953
2) How appropriation was initiated: Construction and filling of lake
3) Date water applied to beneficial use 07/07/1953

C. Amount Claimed: 4.52 acre-feet, absolute, with the right of continuous refills totaling

D. 4.52 acre-feet in a given year

E. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation

F. Surface area of high water line: 1.08 acres

G. Total capacity of reservoir in acre-feet:4.52 acre -feet

15. Name of Reservoir: Spring Lake

A. Legal Description: Located on Big Spring Creek in the SE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Big Spring Creek in the SE ¼ of the SW ¼ of said Section 21, at a point 560 feet from the South line and 1960 feet from the West line of said Section 21 (NAD 83 UTM 13N 489715.3E 4334627.9N)

B. Source: Trout Creek and Big Spring Creek
1) Date of appropriation: 07/07/1953
2) How appropriation was initiated: Construction and filling of lake
3) Date water applied to beneficial use 07/07/1953

C. Amount Claimed: 4.52 acre-feet, absolute, with the right of continuous refills totaling 4.52 acre-feet in a given year

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation

E. Surface area of high water line: 1.00 acre

F. Total capacity of reservoir in acre-feet: 4.52 acre-feet

16. Name of Reservoir: Watson Lake

A. Legal Description: Located on Trout Creek in the NE ¼ of the SW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the NE ¼ of the SW ¼ of said Section 21, at a point 2600 feet from the North line and 1650 feet from the West line of said Section 21 (NAD 83 UTM 13N 489617.8E 4335249.8N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 09/04/1956
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use: 09/04/1956

C. Amount Claimed: 28.16 acre-feet, absolute, with the right of continuous refills totaling 28.16 acre-feet in a given year

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation

E. Surface area of high water line: 8.34 acres

F. Total capacity of reservoir in acre-feet: 28.16 acre-feet

17. Name of Reservoir: Bear Lake

A. Legal Description: Located on Trout Creek in the NW ¼ of the NW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the NW ¼ of the NW ¼ of said Section 21, at a point 990 feet from the North line and 925 feet from the West line of said Section 21 (NAD 83 UTM 13N 489393.0E 4335768.3N)

B. Source: Trout Creek and Big Spring Creek
   1) Date of appropriation: 08/16/2004
   2) How appropriation was initiated: Construction and filling of lake
   3) Date water applied to beneficial use: 08/16/2004

C. Amount Claimed: 3.92 acre-feet, absolute, with the right of continuous refills totaling 3.92 acre-feet in a given year

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation

E. Surface area of high water line: 1.36 acres

F. Total capacity of reservoir in acre-feet: 3.92 acre-feet

18. Name of Reservoir: Cougar Lake

A. Legal Description: Located on Trout Creek in the NW ¼ of the NW ¼ of Section 21, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado. The centerline of the dam crosses Trout Creek in the NW ¼ of the NW ¼ of said Section 21, at a point 150 feet from the North line and 125 feet from the West line of said Section 21 (NAD 83 UTM 13N 489143.7E 4336026.9N)

B. Source: Trout Creek and Big Spring Creek
1) Date of appropriation: 08/16/2004
2) How appropriation was initiated: Construction and filling of lake
3) Date water applied to beneficial use: 08/16/2004

C. Amount Claimed: 5.17acre-feet, absolute, with the right of continuous refills totaling 5.17 acre-feet in a given year

D. Use: Irrigation, recreational, piscatorial, fish culture, domestic, commercial and augmentation

E. Surface area of high water line: 1.21acres

F. Total capacity of reservoir in acre-feet: 5.17 acre-feet

19. Each reservoir must be equipped with outlet works capable of passing all out-of-priority inflows to the nearest natural water source. All out-of-priority inflows to each reservoir from any source, including precipitation, must be released without use. To the extent the water level in a reservoir is below the respective outlet works, Applicant shall utilize pumps to pass out-of-priority inflows.

20. Diversions by Applicant under these water storage rights will be made only in priority, for the uses described herein. Applicant intends to keep each reservoir as full as possible, limited by the availability of in-priority diversions to storage and augmentation supplies. The maximum fill for each reservoir in any one year would occur after an extended drought when all of the reservoirs are near empty. The maximum combined refill in any year for all ponds will be limited to the annual evaporation amount plus the annual volumes of the other beneficial uses.

21. The court finds that Applicant's activities on the date indicated above sufficiently indicate its intent to appropriate each of the Water Storage Rights adjudicated herein. Further, the court

finds that the priorities confirmed herein shall be senior to all priorities awarded based upon applications filed after 2015 and to all applications filed during 2015, but receiving priority dated subsequent to the dates awarded herein.

22. Applicant shall institute an accounting system for its Water Storage Rights, recorded in an appropriate format acceptable to the Water Commissioner and the Division Engineer for Water Division 1. Said record shall be submitted to the Water Commissioner or Division Engineer on an annual basis or at such other reasonable intervals as they may request. The water year for accounting purposes for the Water Storage Rights shall be November 1 through October 31.

ADJUDICATION OF SURFACE WATER RIGHTS

23. Applicant seeks surface water rights ("Surface Water Rights") for diversions from Big Spring via the Big Spring Pipeline for Applicant's fish hatchery, residences, lodge and irrigation of a portion of Applicant's land. A combined total of 1.0 cfs is claimed for the following four uses described herein.

A. Hatchery and Raceways
   1) Name of structure: Big Spring Pipeline/Hatchery
   2) Legal description of point of diversion: Located is in the NE ¼ of the NW ¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado, 10 feet south from the North line and 1985 feet east from the West line of said Section 28 (NAD 83 UTM 13N 489717E 4334442N)
   3) Source: Big Spring, source of Big Spring Creek and tributary to Trout Creek
   4) Date of appropriation: 12/31/1914
      i) How appropriation was initiated: Diversion of water for fish culture, stocking and commercial sale
      ii) Date water applied to beneficial use: 12/31/1914
   5) Amount claimed: 1.0 cfs, absolute
   6) All uses or proposed uses: fish culture, stocking and commercial sale
   7) Non-irrigation purpose description: Applicant operates a private commercial fishing club and operates a hatchery and raceways to raise fish for sport fishing, stocking and commercial sale. Water is diverted into holding areas, raceways and a hatchery building to culture mature fish.
   8) Name and address of owner of land on which structure for water right is located:
      Midwest Off Road Enthusiasts Inc.
      P.O. Box 279
      Woodland Park, CO 80866

B. Residences
   1) Name of structure: Big Spring Pipeline/Residences
   2) Legal description of point of diversion: Located is in the NE ¼ of the NW ¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado, 10

feet south from the North line and 1985 feet east from the West line of said Section 28 (NAD 83 UTM 13N 489717E 4334442N)

3) Source: Big Spring, tributary to Trout Creek
4) Date of appropriation: 12/31/1914
   i) How appropriation was initiated: Diversion of water for domestic use
   ii) Date water applied to beneficial use: 12/31/1914
5) Amount claimed: 1.0 cfs, absolute
6) All uses or proposed uses: Domestic use
7) Non-irrigation purpose description: Domestic use for three single-family residences
8) Name and address of owner of land on which structure for water right is located:
   Midwest Off Road Enthusiasts Inc.
   P.O. Box 279
   Woodland Park, CO 80866

C. Lodge
1) Name of structure: Big Spring Pipeline/Lodge
2) Legal description of point of diversion: Located is in the NE ¼ of the NW ¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado, 10 feet south from the North line and 1985 feet east from the West line of said Section 28 (NAD 83 UTM 13N 489717E 4334442N)
3) Source: Big Spring, tributary to Trout Creek
4) Date of appropriation: 12/30/2015, conditional
   i) How appropriation was initiated: Field investigation, engineering investigation and forming the intent to appropriate.
   ii) Date water applied to beneficial use: Conditional
5) Amount claimed: absolute 1.0 cfs, conditional
6) All uses or proposed uses: Domestic, commercial, and other water uses for a proposed overnight lodge
7) Non-irrigation purpose description: Water for a proposed overnight lodge
8) Name and address of owner of land on which structure for water right is located:
   Midwest Off Road Enthusiasts Inc.
   P.O. Box 279
   Woodland Park, CO 80866

D. Irrigation
1) Name of structure: Big Spring Pipeline/Irrigation
2) Legal description of point of diversion: Located is in the NE ¼ of the NW ¼ of Section 28, Township 10 South, Range 69 West of the 6th P.M., Douglas County, Colorado, 10 feet south from the North line and 1985 feet east from the West line of said Section 28 (NAD 83 UTM 13N 489717E 4334442N)
3) Source: Big Spring, tributary to Trout Creek
4) Date of appropriation: 12/31/1914

i) How appropriation was initiated: Diversion of water for irrigation
ii) Date water applied to beneficial use: 12/31/1914

5) Amount claimed: absolute 1.0 cfs, absolute
6) All uses or proposed uses: Irrigation of 5 acres
7) Name and address of owner of land on which structure for water right is located:
Midwest Off Road Enthusiasts Inc.
P.O. Box 279
Woodland Park, CO 80866

24. Diversions by Applicant under these Surface Water Rights will be made only in priority, for the uses described herein.

25. The court finds that Applicant's activities on the date indicated above sufficiently indicate its intent to appropriate each of the Surface Water Rights adjudicated herein. Further, the court finds that the priorities confirmed herein shall be senior to all priorities awarded based upon applications filed after 2015 and to all applications filed during 2015, but receiving priority dated subsequent to the dates awarded herein.

26. Applicant shall institute an accounting system for its Surface Water Rights, recorded in an appropriate format acceptable to the Water Commissioner and the Division Engineer for Water Division 1. Said record shall be submitted to the Water Commissioner or Division Engineer on an annual basis or at such other reasonable intervals as they may request. The water year for accounting purposes for the Surface Water Rights shall be November 1 through October 31.

APPROVAL OF PLAN FOR AUGMENTATION

27. Applicant seeks a decree approving a plan for augmentation to augment or replace out-of- priority diversions to the Reservoirs for the uses described herein and to replace evaporation, and out-of-priority diversions associated with the Big Spring Pipeline Well, originally decreed in Case No. W-6138 (Div. 1), and decreed for additional uses herein. The plan for augmentation allows Applicant to maintain water levels in the Reservoirs for the claimed uses and to supply water for the hatchery, residences, lodge and irrigation at times when curtailment of diversions would otherwise be required. The estimated monthly volumes of diversions, consumptive use, and evaporation are summarized in Exhibit B.

28. Structures to be Augmented: The water storage rights claimed for the Reservoirs, the direct flow Surface Water Rights claimed for the uses described herein (hatchery, residences, lodge and irrigation), and the Big Springs Pipeline Well.

29. Water Rights to be Used for Augmentation: Water stored under the storage rights claimed in this case will be released from one or more of the Reservoirs to augment out-of-priority diversions to storage in other of the Reservoirs; out-of-priority diversions for the hatchery, residences, lodge; and irrigation; and the Big Spring Pipeline Well water right. In addition,

augmentation water will be obtained from the City of Woodland Park pursuant to a lease for delivery of fully consumable water delivered to Trout Creek by the City of Woodland Park from the sources and facilities described in the City's decrees in Consolidated Cases Nos. 86CW376 (Div.1) and 86CW123 (Div. 2), and Case No. 2002CW254 (Div. 1), including, but not limited to, reusable return flows from transmountain water rights, other fully consumable water rights, and fully augmented water rights. The water rights to be decreed herein for augmentation purposes shall only be used in this plan for augmentation, unless approval of a new plan for augmentation is obtained in a separate application.

30. Description of Plan: Applicant will use the Reservoirs for the purposes described herein. In addition, Applicant will divert water at the Big Springs Pipeline point of diversion for use in the hatchery, raceways, residences, lodge, for irrigation and for the Big Spring Pipeline Well for its decreed purposes. Any out-of-priority diversions will be augmented from the sources described herein. Credit will be taken by Applicant for water released from the Reservoirs to Trout Creek and for fully consumable water leased from the City of Woodland Park that is released to Trout Creek and reduced by appropriate transit losses. Applicant's plan provides a method for replacing water necessary to meet the lawful requirements of senior diverters at the time and location and to the extent that seniors would be deprived of their lawful entitlement.

31. Diversions from the Big Spring Pipeline for the indoor and irrigation uses will be measured separately using totalizing flow meters. The septic system return flow volume will be computed as 90 percent of the measured indoor water use, while the irrigation return flows will be computed as 15 percent of the measured irrigation use. Lagged septic system and irrigation return flows will be computed using unit response functions computed by the Glover Procedure. Applicant has calculated these amounts based upon the current anticipated location of septic systems and irrigated land. Applicant will re-calculate these amounts after the facilities are installed, and provide notice pursuant to the "accounting procedure" in Paragraph 32. When there is a senior priority call in effect, the Applicant will typically continue to divert water for indoor and irrigation uses. Stream depletions for these uses will be computed based on the measured diversions minus the computed septic system and irrigation return flows. The Applicant will also divert water to replace evaporation and keep the most popular fishing lakes full. Water will be released from one or more of the other lakes to replace the out-of-priority depletions resulting from the indoor and irrigation uses and to replace any out-of-priority diversions to storage. From time to time, the Applicant will exercise a lease of augmentation water from the City of Woodland Park ("Woodland Park") to partially or fully refill the evacuated space in the reservoirs. The Reservoirs will also be refilled when the associated water rights are in priority.

32. The Court finds that the source of augmentation and replacement water and the protective terms outlined above are sufficient to protect the vested rights of other water users in the South Platte basin. The Court further finds that, subject to the terms and conditions contained in this decree, the uses of the water described herein may be implemented and may continue without material injury to the vested water rights or decreed conditional water rights of others.

33. Measurement, Accounting, and Reporting. The Applicant shall compute the inflow or outflow from each reservoir based on the measured change in storage plus the compute net evaporation. The surface water and change in storage shall be determined based on the measured stage and the stage-area-capacity table. The net evaporation shall be computed based on the net evaporation in Exhibit B (row 10) on days with no ice cover multiplied by the surface area. The computed inflows/outflows from all of the lakes will be totaled and added to the computed depletions from the indoor and irrigation users. The out-of-priority depletions will be computed based on the daily priority calls affecting Trout Creek. The out-of-priority depletions will be replaced by adjustment of the water levels in the lakes and by water leased from the City of Woodland Park. In addition to the measuring devices expressly described herein, the Applicant shall install and maintain, at its expense, such additional meters, gauges, or other measuring devices required by the Water Commissioner or Division Engineer, and shall report at reasonable times to the Water Commissioner and/or Division Engineer the readings of such meters, gauges, or other measuring devices pursuant to C.R.S. § 37-92-502(5). The accounting is an administrative tool required by this Ruling to confirm that diversions and replacements are made in correct time, location, and amount in accordance with the terms and conditions of this decree. The accounting shall be sufficient in detail so that state water officials are not limited in their duty to administer, and make record of, the movement of water in accordance with this decree. All accounting must be acceptable to the Division Engineer, or his designated representative, and shall adhere to all applicable policy, guidelines, and protocol established by the Division Engineer. Unresolved disputes regarding the accounting forms and the accounting shall be resolved by the Water Court. The Court retains continuing jurisdiction to resolve any dispute regarding any proposed changes to the accounting form. The accounting form attached hereto is not decreed in this case and may be changed from time to time with the approval of the Division Engineer, so long as the changed accounting forms include the information required. Illustrative examples of the Applicant's accounting sheets are provided in Exhibit C. This Ruling does not establish or require a specific accounting form. The accounting is subject to revision at the direction of the Division Engineer, and may change from time to time. At a minimum, the accounting shall report the following: (1) priority call affecting Trout Creek, (2) staff gage reading and corresponding storage contents and surface area for each lake, (3) computed inflows to storage in each lake, (4) computed storage releases from each lake, (5) measured water used for in-house uses and irrigation use, (6) computed septic system return flows and irrigation return flows (7) out-of-priority depletions requiring augmentation, (8) amounts of water leased from Woodland Park less transit losses, and (9) a net river balance that summarizes the out-of-priority depletions and replacement supplies.

34. Proposed accounting forms shall be provided to the Division Engineer for his/her approval, in an unlocked electronic spreadsheet format with necessary equations included and served on Opposers at the same time. Opposers shall have sixty-three (63) days from the date of such service to serve comments concerning the proposed accounting forms on the Applicant and the Division Engineer. Applicant shall obtain approval of the proposed accounting forms from the Division Engineer prior operation of the plan for augmentation decreed herein. The initial accounting forms as approved by the Division Engineer may be modified without further Court

action, after 63 days advance notice is served on the Division Engineer and all Opposers, which notice clearly identifies the proposed changes. Opposers shall have sixty-three (63) days from the date such notice is served to serve on the Applicant and the Division Engineer comments on the proposed changes, and the Division Engineer shall have thirty-five (35) days after the expiration of the comment period to issue a written approval, modification or denial of the proposed changes.

Accounting reports will be provided to the Division Engineer and Water Commissioner within thirty (30) days of the end of each month, or more frequently if requested, in a format acceptable to the Division Engineer. The Applicant shall make the accounting available to other Opposers upon request at a reasonable cost to cover hard copy or electronic copy costs. In addition to the measuring devices expressly described herein, the Applicant shall install and maintain, at its expense, such additional meters, gauges, or other measuring devices required by the Water Commissioner or Division Engineer, and shall report at reasonable times to the Water Commissioner and/or Division Engineer the readings of such meters, gauges, or other measuring devices pursuant to C.R.S. § 37-92-502(5).

35. [Reserved for paragraph recognizing and describing the CWCB ISF rights. Also for language confirming that augmentation of reservoir evaporation, residential (domestic) use and irrigation was made prior to 1977, so the augmentation does not need to satisfy the ISF. Augmentation of lodge use would need to satisfy the ISF.]

36. Opposer Center of Colorado Water Conservancy District and the Upper South Platte Water Conservancy District own decreed exchange rights on Trout Creek from the confluence of Horse Creek to the Teller County line located in the SW ¼ of the SW ¼ of Section 34, Township 10 South, Range 69 West of the 6th P.M. as decreed in Case Nos. 12CW50 and 02CW389, District Court, Water Division 1. Such decreed exchange rights are senior to the herein decreed water rights.

CONCLUSIONS OF LAW

1. This Application was filed with the Water Clerk, Water Division 1, pursuant to C.R.S. §37-92-302(1)(a). Statements of Opposition were filed by the City and County of Denver, Colorado Water Conservation Board and Headwater Authority of the South Platte. As is specified in C.R.S. §37-92-302(1)(c), the time for filing statements of opposition has expired. Applicants have entered into Stipulations with the City and County of Denver, Colorado Water Conservation Board and Headwater Authority of the South Platte. The terms and conditions of the Stipulations are incorporated herein by reference.

2. The Application for Application for Water Storage Rights, Surface Water Rights and for Approval of a Plan for Augmentation described herein is contemplated and authorized by law, and if administered in accordance with this decree, will permit the uninterrupted use of the Reservoir, and the Surface Water Rights for the purposes described herein without adversely affecting any

other vested water rights in the South Platte River or its tributaries. C.R.S. §§37-92-305(3), (5) and (8), §37-80-120 and §37-83-104.

3. The State Engineer may lawfully be required to administer this water storage right, plan for augmentation and water exchange in the manner set forth herein.

4. As a result of the operation of the Plan for Augmentation, the depletions associated with the Reservoir, and associated with evaporation from the Reservoir, and associated with the Surface Water Rights, will not result in the material injury to the vested water rights of others.

NOW, THEREFORE, IT IS HEREBY ORDERED, ADJUDGED AND DECREED AS FOLLOWS:

5. The Application for Water Storage Rights, Surface Water Rights and for Approval of a Plan for Augmentation is approved.

6. The State Engineer, the Division Engineer and/or the Water Commissioner shall not, at the request of appropriators, or on their own initiative, curtail diversions to storage in the Reservoirs or diversions of the Surface Water Rights so long as the out-of-priority depletions associated with said diversions are replaced to the stream system pursuant to the conditions contained herein. To the extent that Applicant is ever unable to provide the replacement water required, then the Reservoir and Surface Water Rights shall not be entitled to operate under the protection of this Plan, and shall be subject to administration and curtailment in accordance with the laws, rules and regulations of the State of Colorado. Pursuant to C.R.S. §37-92-305(8), the State Engineer shall curtail all out-of-priority diversions, the depletions of which are not so replaced as to prevent injury to vested water rights.

7. All of the foregoing Finding of Fact and Conclusions of Law are incorporated by reference herein, and are to be considered a part of the decretal portion hereof as though set out in full.

8. Applicant, and its successors, shall make available for release to the stream system a sufficient quantity of water to replace depletions associated with the Reservoir and Surface Water Rights. The volume of augmentation water required to be released shall be limited to out-of-priority depletions to the stream system directly attributable to diversions to storage in the Reservoirs and diversion of the Surface Water Rights.

9. The Court confirms that the water rights described herein as augmentation and replacement water can be utilized for replacement and augmentation purposes to replace depletions associated with out-of-priority water use as described herein.

10. The water storage rights sought herein, and the Surface Water Rights sought herein are contemplated by law and if administered in accordance with this decree will not result in injury to the vested rights or decreed conditional water rights of others.

11. Pursuant to the provisions contained in C.R.S. §37-92-304(6), the plan for augmentation decreed herein shall be subject to the reconsideration of this Court, for the purpose of evaluating injury to vested water rights, for a period of five years from the first date Applicant has delivered water from both augmentation sources to augment depletions. Applicant shall provide notice to the parties and the Division Engineer of the beginning of the retained jurisdiction period. Any person, within the five year period, may petition the Court to invoke its retained jurisdiction. Any such request shall state with particularity the factual basis for requesting that the Court evaluate injury to vested water rights associated with the operation of this decree, together with proposed decretal language to effect the petition. Unless otherwise stated herein, the party lodging the petition shall have the burden of going forward to establish the prima facie facts alleged in the petition. If the Court finds those facts to be established, the Applicant shall thereupon have the burden of proof to show; (a) that any modification sought by Applicant will avoid injury to other appropriators, or (b) that any modification sought by an Opposer is not required to avoid injury to other appropriators, or (c) that any term or condition proposed by the Applicant in response to Opposer's petition does avoid injury to other appropriators. Such petition shall be filed with the Court under the above styled caption and case number and shall be served by certified mail, return receipt requested, on all parties have appeared herein, or on their counsel of record. If no such petition is lodged within the five year period, and the retained jurisdiction period is not extended by the Court, in accordance with the provisions of the statute, this decree shall become final under its own terms.

12. A copy of this decree shall be recorded by the Applicant in the office of the Douglas County Clerk and Recorder.

Dated: _____

_____
Water Referee
Water Division No. 1

THE COURT FINDS: NO PROTEST WAS FILED IN THIS MATTER.

THE FOREGOING RULING IS CONFIRMED AND APPROVED, AND IS HEREBY MADE THE JUDGMENT AND DECREE OF THIS COURT.

Dated: _____

_____
Water Judge
Water Division No. 1

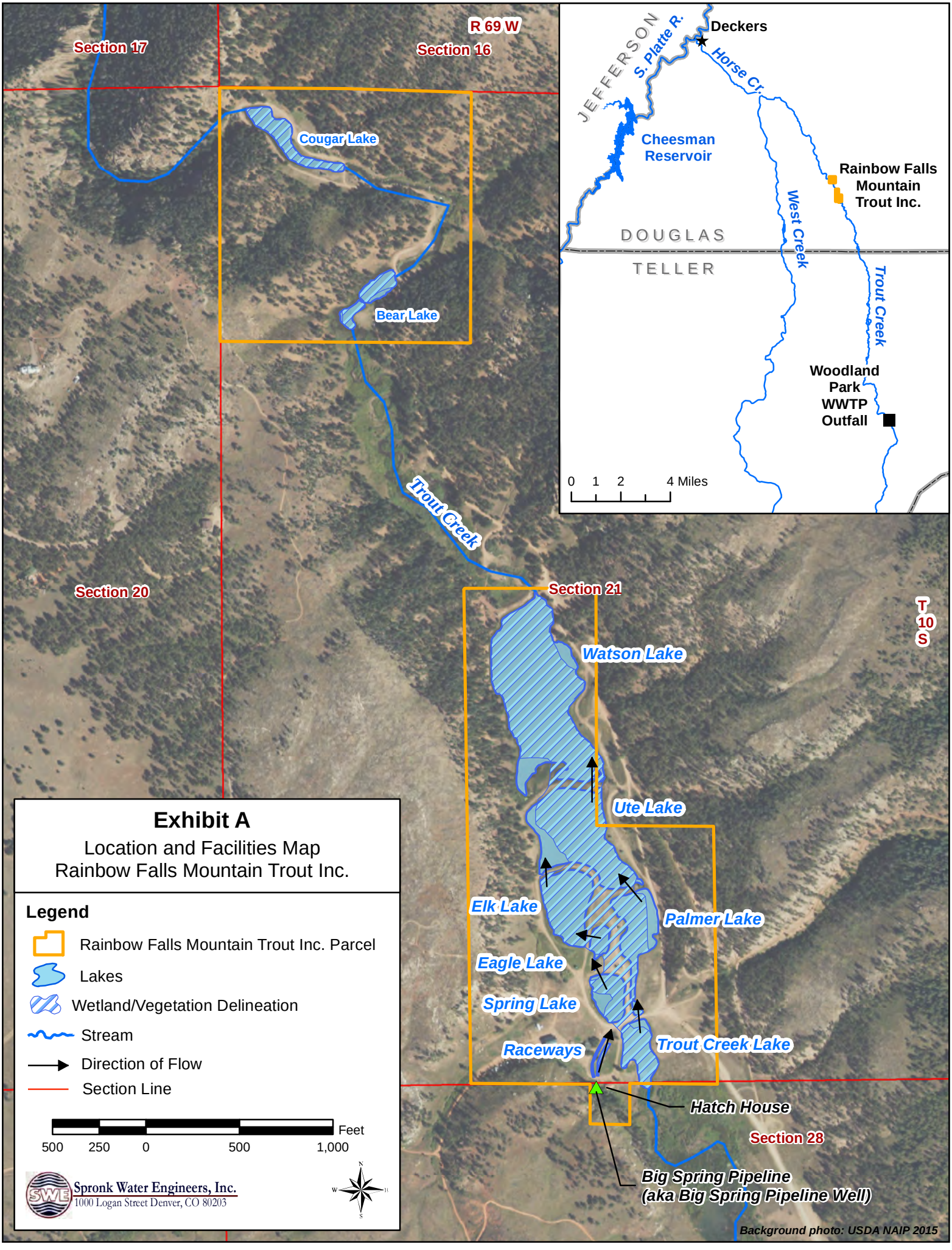

R 69 W
Section 17
Section 16
Cougar Lake
Bear Lake
Trout Creek
Section 20
Section 21
T 10 S
Watson Lake
Ute Lake
Elk Lake
Palmer Lake
Eagle Lake
Spring Lake
Raceways
Trout Creek Lake
Hatch House
Section 28
Big Spring Pipeline
(aka Big Spring Pipeline Well)
JEFFERSON
S. Platte R.
Deckers
Horse Cr.
Cheesman Reservoir
Rainbow Falls Mountain Trout Inc.
West Creek
DOUGLAS
TELLER
Trout Creek
Woodland Park WWTP Outfall
0 1 2 4 Miles
Exhibit A
Location and Facilities Map
Rainbow Falls Mountain Trout Inc.
Legend
Rainbow Falls Mountain Trout Inc. Parcel
Lakes
Wetland/Vegetation Delineation
Stream
Direction of Flow
Section Line
500 250 0 500 1,000 Feet
Spronk Water Engineers, Inc.
1000 Logan Street Denver, CO 80203
Background photo: USDA NAIP 2015

Exhibit B

Monthly Evaporation and Consumptive Use
Rainbow Falls Mountain Trout Inc.

Surface Areas

Total water surface area (ac)	21.09
Total wetlands inundated (ac)	17.71
Total upland area inundated (ac)	3.38

Domestic Parameters

Number residences	3
Annual water use (AF/res)	0.333
Consumptive use %	10%

Evaporation Parameters

Average annual evaporation (in)	35.0
% of precipitation consumed by upland vegetation	70%
Elevation above mean sea level (ft)	7550

Irrigation Parameters

Acres Irrigated	5.00
Annual Irrigation consumptive use (AF/acre)	2.32

Lodge Parameters

Number rooms	25
Daily use (gpd/room)	100
Average occupancy (%)	75%
Consumptive use %	10%

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	Lake Evaporation													
(1)	Monthly evaporation distribution >6500 ft.	1.0%	3.0%	6.0%	9.0%	12.5%	15.5%	16.0%	13.0%	11.0%	7.5%	4.0%	1.5%	100.0%
(2)	Gross evaporation (in)	0.35	1.05	2.10	3.15	4.38	5.43	5.60	4.55	3.85	2.63	1.40	0.53	35.00
(3)	Average monthly precipitation (in)	0.46	0.57	1.28	1.66	1.94	1.69	2.54	2.61	1.21	1.06	0.76	0.59	16.37
(4)	Wetland CU (in)	0.00	0.00	0.00	0.07	2.12	6.67	8.01	6.88	4.66	1.14	0.00	0.00	29.56
(5)	Precipitation consumed by upland vegetation (in)	0.32	0.40	0.90	1.16	1.36	1.18	1.78	1.83	0.85	0.74	0.53	0.41	11.46
(6)	Gross pond and raceway evaporation (AF)	0.62	1.85	3.69	5.54	7.69	9.53	9.84	8.00	6.77	4.61	2.46	0.92	61.52
(7)	Wetland CU (AF)	0.00	0.00	0.00	0.10	3.13	9.84	11.82	10.16	6.88	1.69	0.01	0.00	43.63
(8)	Precipitation consumed by upland vegetation (AF)	0.09	0.11	0.25	0.33	0.38	0.33	0.50	0.52	0.24	0.21	0.15	0.12	3.23
(9)	Net evaporation (AF)	0.53	1.73	3.44	5.11	4.17	-	-	-	-	2.72	2.31	0.81	20.81
(10)	Net evaporation (in)	0.30	0.99	1.96	2.91	2.37	-	-	-	-	1.55	1.31	0.46	11.84
(11)	Percent of month with no ice cover	0%	0%	81%	100%	100%	100%	100%	100%	100%	100%	87%	0%	
(12)	Net evaporation on ice-free days (AF)	0.00	0.00	2.77	5.11	4.17	0.00	0.00	0.00	0.00	2.72	2.00	0.00	16.78
	Irrigation Use													
(13)	Turfgrass consumptive use (in)	0.00	0.00	0.00	0.26	3.37	6.12	6.87	5.90	4.17	1.43	0.02	0.00	28.15
(14)	Effective precipitation (in)	0.32	0.40	0.90	1.16	1.36	1.18	1.78	1.83	0.85	0.74	0.53	0.41	11.46
(15)	Irrigation water requirement (in)	0.00	0.00	0.00	0.00	2.01	4.94	5.09	4.07	3.32	0.69	0.00	0.00	20.13
(16)	Irrigation consumptive use (AF)	0.000	0.000	0.000	0.000	0.839	2.059	2.121	1.697	1.383	0.287	0.000	0.000	8.39
	Domestic and Lodge Use													
(17)	Domestic water use (AF)	0.085	0.077	0.085	0.082	0.085	0.082	0.085	0.085	0.082	0.085	0.082	0.085	1.00
(18)	Lodge water use (AF)	0.178	0.161	0.178	0.173	0.178	0.173	0.178	0.178	0.173	0.178	0.173	0.178	2.10
(19)	Domestic and lodge consumptive use (AF)	0.026	0.024	0.026	0.025	0.026	0.025	0.026	0.026	0.025	0.026	0.025	0.026	0.31
(20)	Total Consumptive Use	0.026	0.024	2.798	5.138	5.040	2.085	2.148	1.723	1.409	3.032	2.024	0.026	25.47

Notes:

(1) Monthly evaporation distribution for elevations above 6500 feet msl (CDWR, 2009).
(2) Average annual evaporation from NOAA Tech Report NWS 33 x monthly evaporation distribution (1).
(3) Average monthly precipitation at Cheesman (1949-2009).
(4) Average monthly consumptive use using Hargreaves method (REF-ET) and large stand wetlands coefficients (Allen, 2007).
(5) Average monthly precipitation (3) x percentage of precipitation consumed by upland vegetation.
(6) Gross evaporation (2) converted to feet x total water surface area at maximum storage volumes.
(7) Wetland CU (4) converted to feet x total wetlands inundated at maximum storage volumes.
(8) Precipitation consumed by upland vegetation (5) and x upland area inundated at maximum storage volumes.
(9) Gross pond evaporation (6) minus wetland CU (7) minus precipitation consumed by upland vegetation (8) .
(10) Net evaporation (9) divided by total water surface area at maximum storage volumes converted to inches.
(11) Percent of month with average daily temperatures greater than 32°F using Cheesman temperature data (1949-2009).
(12) Net evaporation (9) x % month with no ice cover (10).
(13) Average monthly turfgrass consumptive use based on Hargreaves method (REF-ET) and turfgrass coefficients (ASCE, 2016).
(14) Average monthly precipitation (3) x 70%.
(15) Turfgrass consumptive use (13) minus effective precipitation (14).
(16) Irrigation water requirement (15) converted to feet x irrigated area.
(17) 0.333 AF/y x 3 residences, spread evenly year round.
(18) 20 rooms x 100 gpd/room x 75% occupancy, converted to acre-feet and spread evenly year around.
(19) Domestic use + lodge use x 10% consumption (septic treatment).
(20) Net evaporation (12) plus irrigation consumptive use (16) plus domestic and lodge consumptive use (19).

Information Sources

- Aerial Imagery: 1937 Douglas County historic aerial photo from Google Earth, USDA 1999 DOQ, and USDA 2009 NAIP.
- Allen, R.G. and Robison, C.W., April 2007. Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho, U of Idaho.
- Colorado Division of Water Resources, 2009. General Guidelines for Substitute Water Supply Plans for Sand and Gravel Pits.
- NOAA Technical Report NWS TR-33, June 1982. Evaporation Atlas for the Contiguous 48 United States.
- Allen, R.G. and U. of Idaho, 2001. REF-ET: Evapotranspiration Calculation Software for FAO and ASCE Standardized Equations, Version 3.1.01.

Exhibit C-1
Illustrative Daily Accounting Summary
Rainbow Falls Mountain Trout, Inc. SWSP
June 20XX

Contact:
Richard Johnson
Rainbow Falls Mountain Trout Inc.
P.O. Box 279, Woodland Park, CO 80866
(719) 687-8690

Values are not actual. For illustrative purposes only.

Plan Administration No. = **XXXXXX.XX**

	Date	Prev	6/1	6/2	6/3	6/4	6/5	6/6	6/7	6/8	6/9	6/10	6/11	6/12	6/13	6/14	6/15	6/16	6/17	6/18	6/19	6/20	6/21	6/22	6/23	6/24	6/25	6/26	6/27	6/28	6/29	6/30	Monthly
	Priority Call																																
(1)	Ice cover? (1-Yes, 0-No)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(2)	In-Priority? (1-Yes, 0-No)		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	22
	Spring Lake (WDID 0803321)																																
(3)	Gage Reading (ft)		1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	
(4)	Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(5)	Evaporation (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(6)	Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(7)	Computed Inflow (+) Outflow (-)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Eagle Lake (WDID 0803320)																																
(8)	Gage Reading (ft)		3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	
(9)	Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(10)	Evaporation (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(11)	Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(12)	Computed Inflow (+) Outflow (-)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Elk Lake (WDID 0803319)																																
(13)	Gage Reading (ft)		3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	
(14)	Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(15)	Evaporation (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(16)	Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(17)	Computed Inflow (+) Outflow (-)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Trout Creek Lake (WDID 080XXXX)																																
(18)	Gage Reading (ft)		4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	
(19)	Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(20)	Evaporation (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(21)	Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(22)	Computed Inflow (+) Outflow (-)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Palmer Lake (WDID 080XXXX)																																
(23)	Gage Reading (ft)		0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	
(24)	Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(25)	Evaporation (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(26)	Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(27)	Computed Inflow (+) Outflow (-)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ute Lake (WDID 080XXXX)																																
(28)	Gage Reading (ft)		0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	
(29)	Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(30)	Evaporation (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(31)	Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(32)	Computed Inflow (+) Outflow (-)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Bear Lake (WDID 080XXXX)																																
(33)	Gage Reading (ft)		2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	2.49	
(34)	Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(35)	Evaporation (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(36)	Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(37)	Computed Inflow (+) Outflow (-)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cougar Lake (WDID 080XXXX)																																				
(38) Gage Reading (ft)		2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19		
(39) Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(40) Evaporation (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(41) Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(42) Computed Inflow (+) Outflow (-)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Watson Lake (WDID 080XXXX)																																				
(43) Gage Reading (ft)		1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16		
(44) Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(45) Evaporation (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(46) Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(47) Computed Inflow (+) Outflow (-)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total of Lakes																																				
(48) Available Storage Space (af)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(49) Evaporation (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(50) Change in Storage Volume (af)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(51) Computed Inflow (+) Outflow (-)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Domestic/Irrigation Uses (af)																																				
(52) Diversions for Residences		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(53) Diversions for Lodge		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(54) Diversions for Irrigation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Return Flows (af)																																				
(55) Lagged Domestic Returns		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(56) Lagged Irrigation Returns		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Stream Depletion (af)																																				
(57) Domestic		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
(58) Irrigation		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
(59) Computed Inflow/Outflow		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
(60) **Total Stream Depletion**		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	**0.00**
Total Replacement Obligation (af)																																				
(61) Out-of-Priority Computed Inflow		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
(62) Out-of-Priority Raceway Inflow		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
(63) Out-of-Priority Dom/Irr CU		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00
(64) **Total Replacement Oblig**		**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.108**	**0.108**	**0.108**	**0.108**	**0.108**	**0.108**	**0.108**	**0.108**	**0.86**		
Total Replacement Supplies (af)																																				
(65) Leased Water at Woodland Park		0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	1.00		
(66) Leased Water Transit Loss		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.06		
(67) **Total Replacement Supply**		**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	0.94		
Net Stream Effect (Out of Priority) (af)																																				
(68) Depletion (-) or Accretion (+)		0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	0.08		
(69) Cumulative Effect	0.03	0.06	0.09	0.12	0.15	0.19	0.22	0.25	0.28	0.31	0.34	0.37	0.41	0.44	0.47	0.50	0.53	0.56	0.59	0.62	0.66	0.69	0.72	0.64	0.57	0.49	0.41	0.34	0.26	0.18	0.11	0.11			

*All values in acre-feet, unless indicated otherwise.

Notes

(1) Is there ice covering entire pond? (Enter "1" for yes and "0" for no)
(2) Is the plan in priority? (Enter "1" for yes and "0" for no)
(3) Staff gage reading (ft)
(4) Available storage space in lake (af)
(5) Evaporation computed as the net evaporation rate on days with no ice cover multiplied by the surface area (af)
(6) Change in storage based on the staff gage reading and the stage-capacity relationship (af)
(7) Computed inflow/outflow calculated as the change in storage plus the evaporation (af)
(8) Staff gage reading (ft)
(9) Available storage space in lake (af)
(10) Evaporation computed as the net evaporation rate on days with no ice cover multiplied by the surface area (af)
(11) Change in storage based on the staff gage reading and the stage-capacity relationship (af)
(12) Computed inflow/outflow calculated as the change in storage plus the evaporation (af)
(13) Staff gage reading (ft)
(14) Available storage space in lake (af)
(15) Evaporation computed as the net evaporation rate on days with no ice cover multiplied by the surface area (af)
(16) Change in storage based on the staff gage reading and the stage-capacity relationship (af)
(17) Computed inflow/outflow calculated as the change in storage plus the evaporation (af)
(18) Staff gage reading (ft)
(19) Available storage space in lake (af)
(20) Evaporation computed as the net evaporation rate on days with no ice cover multiplied by the surface area (af)
(21) Change in storage based on the staff gage reading and the stage-capacity relationship (af)
(22) Computed inflow/outflow calculated as the change in storage plus the evaporation (af)
(23) Staff gage reading (ft)
(24) Available storage space in lake (af)
(25) Evaporation computed as the net evaporation rate on days with no ice cover multiplied by the surface area (af)
(26) Change in storage based on the staff gage reading and the stage-capacity relationship (af)
(27) Computed inflow/outflow calculated as the change in storage plus the evaporation (af)
(28) Staff gage reading (ft)
(29) Available storage space in lake (af)
(30) Evaporation computed as the net evaporation rate on days with no ice cover multiplied by the surface area (af)
(31) Change in storage based on the staff gage reading and the stage-capacity relationship (af)
(32) Computed inflow/outflow calculated as the change in storage plus the evaporation (af)
(33) Staff gage reading (ft)
(34) Available storage space in lake (af)
(35) Evaporation computed as the net evaporation rate on days with no ice cover multiplied by the surface area (af)
(36) Change in storage based on the staff gage reading and the stage-capacity relationship (af)
(37) Computed inflow/outflow calculated as the change in storage plus the evaporation (af)
(38) Staff gage reading (ft)
(39) Available storage space in lake (af)
(40) Evaporation computed as the net evaporation rate on days with no ice cover multiplied by the surface area (af)
(41) Change in storage based on the staff gage reading and the stage-capacity relationship (af)
(42) Computed inflow/outflow calculated as the change in storage plus the evaporation (af)
(43) Staff gage reading (ft)
(44) Available storage space in lake (af)
(45) Evaporation computed as the net evaporation rate on days with no ice cover multiplied by the surface area (af)
(46) Change in storage based on the staff gage reading and the stage-capacity relationship (af)
(47) Computed inflow/outflow calculated as the change in storage plus the evaporation (af)
(48) Sum of lakes available storage space (af).
(49) Sum of lakes evaporation. (af)
(50) Sum of lakes change in storage based on staff gage reading and the stage-capacity relationship (af).
(51) Sum of lakes computed inflow calculated as the change in storage plus the evaporation (af)
(52) Water diverted for indoor use in residences (af).
(53) Water diverted for indoor use in lodge (af).
(54) Water diverted for irrigation use (af).
(55) Domestic return flows (90% of domestic diversions) lagged as per Glover calculations.
(56) Irrigation return flows (15% of irrigation diversions) lagged as per Glover calculations.
(57) Consumptive use of residences and lodge minus lagged septic return flows (af).
(58) Irrigation consumptive use minus lagged return flows (af).
(59) Depletions or accretions due to calculated inflows or outflows (af).
(60) Row (57) + Row (58) + Row (59).
(61) Total out-of-priority computed inflow (af).
(62) Total out-of-priority inflow to replace raceway evaporation (af).
(63) Total out-of-priority consumptive use of water for domestic and irrigation use (af).
(64) Row (61) + Row (62) + Row (63).
(65) Total water leased at Woodland Park (af).
(66) Transit loss of leased Woodland Park water (0.5% per mile x 12.4 miles = 6.2%).
(67) Total leased water Row (65) - transit loss Row (66); no credit when plan is in-priority (af),
(68) Row (67) - Row (64).
(69) Current days effect on river + previous days effect on river; (-) net depletion and (+) net accretion (af).

Exhibit C-2
Illustrative Monthly Accounting Summary
Rainbow Falls Mountain Trout, Inc. SWSP

Contact:
Richard Johnson
Rainbow Falls Mountain Trout Inc.
P.O. Box 279, Woodland Park, CO 80866
(719) 687-8690

Month: 6
Year: 20XX

Values are not actual. For illustrative purposes only.

	Date	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Annual
	Priority Call													
(1)	Total Days with Ice Cover	7	0	23	18	0	0	0	0	0	0	0	2	48
(2)	Total Days in Priority	7	0	23	8	31	26	19	22	0	0	0	0	136
	Elk Lake (WDID 0803319)													
(3)	Available Storage Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(4)	Evaporation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(5)	Change in Storage Volume	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(6)	Computed Inflow (+) Outflow (-)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Eagle Lake (WDID 0803320)													
(7)	Available Storage Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(8)	Evaporation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(9)	Change in Storage Volume	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(10)	Computed Inflow (+) Outflow (-)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Spring Lake (WDID 0803321)													
(11)	Available Storage Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(12)	Evaporation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(13)	Change in Storage Volume	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(14)	Computed Inflow (+) Outflow (-)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Trout Creek Lake (WDID 0803321)													
(15)	Available Storage Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(16)	Evaporation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(17)	Change in Storage Volume	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(18)	Computed Inflow (+) Outflow (-)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Palmer Lake (WDID 080XXX)													
(19)	Available Storage Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(20)	Evaporation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(21)	Change in Storage Volume	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(22)	Computed Inflow (+) Outflow (-)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ute Lake (WDID 080XXX)													
(23)	Available Storage Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(24)	Evaporation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(25)	Change in Storage Volume	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(26)	Computed Inflow (+) Outflow (-)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Bear Lake (WDID 080XXX)													
(27)	Available Storage Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(28)	Evaporation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(29)	Change in Storage Volume	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(30)	Computed Inflow (+) Outflow (-)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Cougar Lake (WDID 080XXX)													
(31)	Available Storage Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(32)	Evaporation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(33)	Change in Storage Volume	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(34)	Computed Inflow (+) Outflow (-)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Watson Lake (WDID 080XXX)													
(35) Available Storage Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(36) Evaporation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(37) Change in Storage Volume	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(38) Computed Inflow (+) Outflow (-)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total of Lakes													
(39) Available Storage Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(40) Evaporation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(41) Change in Storage Volume	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(42) Computed Inflow (+) Outflow (-)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Domestic/Irrigation Uses (af)													
(43) Diversions for Residences	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(44) Diversions for Lodge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(45) Diversions for Irrigation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Return Flows (af)													
(46) Lagged Domestic Returns	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(47) Lagged Irrigation Returns	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Stream Depletion (af)													
(48) Domestic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(49) Irrigation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(50) Computed Inflow/Outflow	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(51) Total Stream Depletion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Replacement Obligation (af)													
(52) Out-of-Priority Computed Inflow	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(53) Out-of-Priority Raceway Inflow	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(54) Out-of-Priority Dom/Irr CU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(55) Total Replacement Oblig	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(56) In-Priority Depletions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Replacement Supplies (af)													
(57) Leased Water at Woodland Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(58) Leased Water Transit Loss	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(59) Total Replacement Supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Stream Effect (Out of Priority) (af)													
(60) Depletion (-) or Accretion (+)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(61) Cumulative Effect	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*All values in acre-feet, unless indicated otherwise.

Notes:

(1) Total number of days with full ice cover over ponds (days).
(2) Total number of days the plan is in priority (days).
(3) Available storage space in lake (af)
(4) Evaporation computed as the net evaporation rate on days with no ice cover multiplied by the surface area (af)
(5) Change in storage based on the staff gage reading and the stage-capacity relationship (af)
(6) Computed inflow/outflow calculated as the change in storage plus the evaporation (af)
(7) Available storage space in lake (af)
(8) Evaporation computed as the net evaporation rate on days with no ice cover multiplied by the surface area (af)
(9) Change in storage based on the staff gage reading and the stage-capacity relationship (af)
(10) Computed inflow/outflow calculated as the change in storage plus the evaporation (af)
(11) Available storage space in lake (af)
(12) Evaporation computed as the net evaporation rate on days with no ice cover multiplied by the surface area (af)
(13) Change in storage based on the staff gage reading and the stage-capacity relationship (af)
(14) Computed inflow/outflow calculated as the change in storage plus the evaporation (af)
(15) Available storage space in lake (af)
(16) Evaporation computed as the net evaporation rate on days with no ice cover multiplied by the surface area (af)
(17) Change in storage based on the staff gage reading and the stage-capacity relationship (af)
(18) Computed inflow/outflow calculated as the change in storage plus the evaporation (af)
(19) Available storage space in lake (af)
(20) Evaporation computed as the net evaporation rate on days with no ice cover multiplied by the surface area (af)
(21) Change in storage based on the staff gage reading and the stage-capacity relationship (af)
(22) Computed inflow/outflow calculated as the change in storage plus the evaporation (af)
(23) Available storage space in lake (af)
(24) Evaporation computed as the net evaporation rate on days with no ice cover multiplied by the surface area (af)
(25) Change in storage based on the staff gage reading and the stage-capacity relationship (af)
(26) Computed inflow/outflow calculated as the change in storage plus the evaporation (af)
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(29) Change in storage based on the staff gage reading and the stage-capacity relationship (af)
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(39) Sum of lakes available storage space (af).
(40) Sum of lakes evaporation. (af)
(41) Sum of lakes change in storage based on staff gage reading and the stage-capacity relationship (af).
(42) Sum of lakes computed inflow calculated as the change in storage plus the evaporation (af)
(43) Water diverted for indoor use in residences (af).
(44) Water diverted for indoor use in lodge (af).
(45) Water diverted for irrigation use (af).
(46) Domestic return flows (90% of domestic diversions) lagged as per Glover calculations.
(47) Irrigation return flows (15% of irrigation diversions) lagged as per Glover calculations.
(48) Consumptive use of residences and lodge minus lagged septic return flows (af).
(49) Irrigation consumptive use minus lagged return flows (af).
(50) Depletions or accretions due to calculated inflows or outflows (af).
(51) Row (48) + Row (49) + Row (50).
(52) Total out-of-priority computed inflow (af).
(53) Total out-of-priority inflow to replace raceway evaporation (af)
(54) Total out-of-priority consumptive use of water for domestic and irrigation use (af).
(55) Row (52) + Row (53) + Row (54).
(56) Total Depletions in priority, not requiring replacement.
(57) Total water leased at Woodland Park (af).
(58) Transit loss of leased Woodland Park water (0.5% per mile x 12.4 miles = 6.2%).
(59) Total leased water Row (57) minus transit loss Row (56).
(60) Net stream depletion Row (59) - Row (55) (af).
(61) Current months net effect on river + previous months net effect on river; (-) net depletion and (+) net accretion (af).

CPW Recommendation Letter

To be provided at the board meeting

CPW Recommendation Letter

To be provided at the board meeting