



CRIPPLE CREEK & VICTOR newmont.com
PO Box 191
100 N. 3rd Street
Victor CO 80860

October 25, 2023

ELECTRONIC DELIVERY

Mr. Patrick Lennberg
Environmental Protection Specialist
Colorado Department of Natural Resources
Division of Reclamation, Mining and Safety
Office of Mined Land Reclamation
1313 Sherman Street, Room 215
Denver, Colorado 80203

Re: Secondary Adequacy Review, TR-136, Cresson Project, M1980-244

Dear Mr. Lennberg:

On September 26, 2023, Newmont Corporation's Cripple Creek and Victor Gold Mining Company (CC&V) received the Division of Reclamation, Mining and Safety (DRMS) secondary adequacy review of Technical Revision (TR) 136 to Permit M-1980-244, regarding the Numeric Protection Level Recommendations. Below are DRMS comments in **bold** and CC&V's responses in *italics*.

- 1. While the Division acknowledges the Applicant performed an exploratory data analysis, the lack of Quality Control (QC) and Quality Assurance (QA) for the data set used needs additional explanation on possible impacts to conclusions drawn from the data. Until 2021 there has been little to no QA/QC sampling performed at the site. Field duplicate samples and QC samples are collected as a means of assessing quality control from the point of sample collection through all analytical processes and/or for later laboratory analysis. It is not appropriate to utilize the information as another data point in the statistical analysis for the NPLs. During a review of the data, were laboratory reports reviewed and were reporting and detection limits compared to evaluate consistency? Please provide an explanation as to why the data is of sufficient integrity without having evidence that appropriate QA/QC protocols were followed to assure a sufficient foundation exists to support the conclusions drawn from the data**

Field duplicate samples were not included in the statistical calculations as these results are managed separately in the database. As part of the data pre-processing procedure, results from monthly samples, or samples collected on a more frequent basis, were averaged to quarterly values as recommended by Interstate Technology and Regulatory Council (ITRC) Guidance. The table below provides a comparison of sample and duplicate results for the Point of Compliance wells where duplicate samples are available. The greatest percent difference observed between a sample and a duplicate is less than four percent (3.9% for cobalt at SGMW-6B). Percent difference calculations have also been provided with the quarterly reports since 2021.

<i>Constituent</i>	<i>Percent Difference (%)</i>
SGMW 6B - 11/3/2021	
Aluminum	-2.1%
Beryllium	-0.4%
Cadmium	Both below detection limit
Cobalt	3.9%
Total Fluoride	-0.9%
Iron	0.2%
Manganese	-3.8%
Nickel	1.8%
Total Sulfate	0.9%
Uranium	-1.5%
Zinc	2.5%
VIN 2B - 3/29/2021	
Manganese	0.0%
Iron	3.2%
Total Sulfate	0.7%

The absence of field duplicate samples prior to 2021 does not automatically invalidate the groundwater monitoring dataset. Although some statistical trends in the dataset have been identified and discussed, there are no uniform discrepancies across the dataset between samples collected prior to 2021 and samples collected more recently (see the NPL Summary Plots provided in Appendix B of the NPL Recommendation Report). Statistical outliers have been flagged, reviewed, and removed unless there is sufficient justification to keep these values in the dataset. Sampling methods have been documented and will continue to be improved and updated as more information and new sampling technology become available. All samples were also analyzed by a USEPA certified laboratory following all applicable analytical quality control procedures. Based on these reasons, it should not be concluded that data is of insufficient quality due to the lack of duplicate samples prior to 2021.

The Division has previously accepted pre-2021 data for setting existing site specific NPLs. DRMS issued NPLs to CC&V via correspondence on the following dates: October 7, 1996, November 20, 1998, May 18, 2006, and August 7, 2012. On October 7, 1996, DRMS issued NPLs pertaining to all groundwater monitoring locations at the CC&V mine site and set numerical protection limits for the following analytes: aluminum, arsenic, cadmium, copper, fluoride, iron, lead, manganese, mercury, nickel, nitrite, nitrate, nitrate & nitrite, selenium, zinc, cyanide (WAD), and pH. On November 20, 1998, DRMS issued NPLs for monitoring locations CRMW-3B-63, GVMW-8A-250, and WCMW 6-234 for manganese, cyanide (WAD), pH and sulfate. On May 18, 2006, DRMS issued NPLs for Vindicator Valley monitoring location VIN-2B for manganese, cyanide (WAD), pH and

sulfate. On August 7, 2012, DRMS issued updated NPL for monitoring location WCMW-6 and new NPLs for monitoring location WCMW 3-134 for manganese, zinc, cyanide (WAD), pH, and sulfate.

Reporting limits were reviewed for results flagged as non-detect for the constituents of concern for each point of compliance well in each basin (i.e., non-detect results for the constituents listed in Table 1 of the NPL Recommendation Report and the wells listed in Table 2). Where reporting limits exceeded the Regulation 41 Table Value, these results were flagged and removed (shown in Table 3 of the NPL Recommendation Report). There were only two instances where the reporting limit of a non-detect value was greater than the Regulation 41 Table Value: fluoride at VIN-2B measured on 4/1/2020 and nitrate at SGMW-6B measured on 12/11/2019. Reporting limits were not evaluated for consistency; however, as analytical methods and instrument sensitivity continue to improve, detection limits and reporting limits have decreased over the years and would be expected to continue to decrease in the future.

2. **While the Applicant has received Water Court Decrees for reduced water infiltration at the site from the Division of Water Resources, DRMS presumes that those decrees do not specifically address the possibility of increasing concentrations of constituents directly related to the decrease of infiltration. Please provide copies of the Water Court Decrees 02CW122 and 10CW31.**

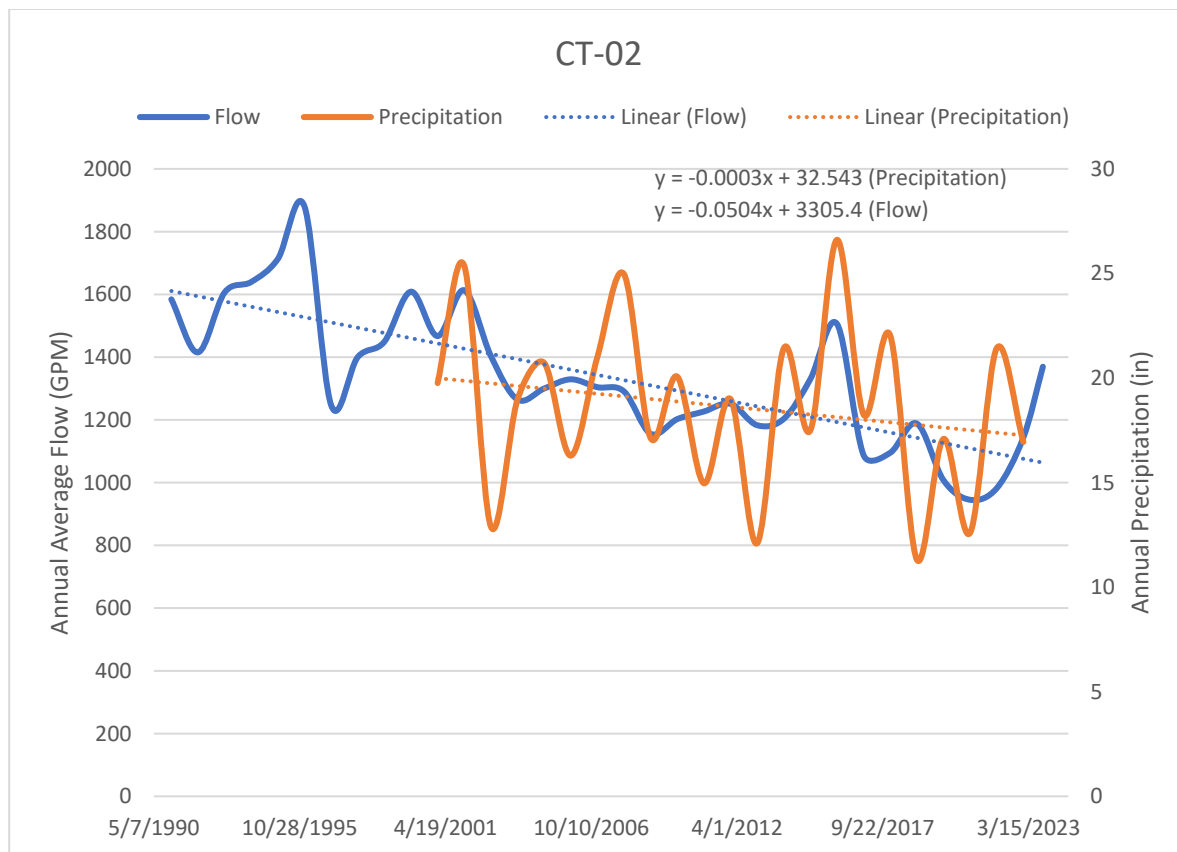
Attachment 1 contains the CC&V Augmentation Decree for Court Case Numbers: 02CW122 and 10CW31.

3. **The Applicant quotes Adrian Brown's February 2012 potential impacts and conclusions. Can the predicted impacts to the Carlton Tunnel discharge be verified?**

Adrian Brown concluded: "A temporary possible decrease of approximately 170 acre-feet per year (~100 gpm) in the flow of water from the regional groundwater system via Carlton Tunnel due to the installation of the SGVLF liner system." This conclusion does not account for any potential changes in precipitation rate, which would not be a result of MLE2 activities.

As the graphic below illustrates, the flow from the Carlton Tunnel has decreased by over 200 gpm, due to a combination of decreased precipitation in the basin and the reduction in infiltration due to the installation of the VLF liner system. It is difficult to quantify exactly how much of this decrease is due to the VLF liner installation, but there is a clear decrease in flow in excess of that expected due to decreased precipitation.

*Carlton Tunnel Flow Rate prior to MLE 2: 1,500 gpm
 Carlton Tunnel Flow Rate Observed (2011-Current): 1,200 gpm*



4. **Setting of the NPLs is intended to be a one-time exercise, not something that is routinely updated as monitored parameters increase. Currently it appears the Operator will have to revisit the NPL concentration levels as continued lining activities occur at the site. Given that lining of the basins has reduced groundwater recharge in some basins and taking into account recent decreases in average annual precipitation, does the Operator anticipate a continued increase in concentrations and can the Operator model what future concentrations may be?**

As referenced in Response #1, the Division has issued multiple iterations of site NPLs since 1996 as the site continues to change and additional data becomes available. However, CC&V acknowledges that the Division's request for the statistical analysis of site data to evaluate potential NPLs for each basin may be intended to set NPLs for the existing monitoring network going forward. For Grassy Valley, Maize Gulch, and Poverty Gulch, the NPLs calculated in TR-136 are recommended as interim NPLs as additional data is collected from the newly installed POC wells. The interim NPLs will be re-evaluated following at least 8 quarters of monitoring so that enough data is available for the statistical analysis. Of the eight increasing trends identified during the statistical evaluation, six of these are associated with iron and manganese which are ubiquitous and naturally occurring in the subsurface. Increasing trends associated with cobalt in Maize Gulch and sulfate in Poverty Gulch were also identified. At this time, CC&V cannot anticipate if these parameters will continue to increase as the relationships between precipitation, infiltration, and reactive transport are not fully understood in these basins. Given the complex



CRIPPLE CREEK & VICTOR newmont.com
PO Box 191
100 N. 3rd Street
Victor CO 80860

geologic setting of the region, significant historical mining activities, heterogeneous distribution of historic mine waste, and uncertainties related to climate change, future groundwater concentrations cannot be modeled with a high degree of confidence.

We trust that the additional information described above and provided in the attachments addresses the comments provided by DRMS regarding the secondary adequacy review of Technical Revision (TR) 136 to Permit M-1980-244 for the recommended NPLs. Should you require further information, please do not hesitate to contact Antonio Matarrese at (719) 851-4185, Antonio.Matarrese@Newmont.com, or myself at (719) 237-3442 or Katie.Blake@Newmont.com.

Sincerely,

DocuSigned by:

Katie Blake

5A3D013B629844B...

Katie Blake
Sustainability & External Relations Manager
Cripple Creek & Victor Gold Mining Co

EC:

M. Cunningham – DRMS
T. Cazier - DRMS
E. Russell - DRMS
A. Matarrese – CC&V
J. Gonzalez – CC&V
K. Blake – CC&V

Attachments: 1

File: "C:\Users\19012214\Newmont USA Limited\CC&V – S&ER Environmental - Permits\Technical Revisions\TR 136 - NPL Proposal 2023\Second Adequacy Review\Final"

1.2 CC&V filed the Application in Case No. 02CW122 with the Water Court on August 29, 2002. The Clerk of the Court has caused the publication of the Application as provided by statute, and the publication costs have been paid.

1.3 CC&V filed the Application in Case No. 10CW31 with the Water Court on May 26, 2010. The Clerk of the Court has caused the publication of the Application as provided by statute, and the publication costs have been paid. All notices of the Application in Case No. 10CW31 have been given in the manner prescribed by law.

1.4 On February 24, 2011, the Water Court consolidated Case Nos. 02CW122 and 10CW31.

1.5 The Court granted leave to amend the application in Case No. 02CW122 and accepted the First Amended Application on August 10, 2012. The Clerk of the Court caused the publication of the First Amended Application as provided by statute, and the publication costs have been paid. All notices of the Application and First Amended Application in Case No. 02CW122 have been given in the manner prescribed by law.

1.6 The Court has jurisdiction over the subject matter of this proceeding and over all parties affected hereby, whether or not they have appeared in this action. The land and water rights involved herein are not included within the boundaries of a designated ground water basin.

1.7 Timely Statements of Opposition were filed in Case No. 02CW122 by Canon Heights Irrigation and Reservoir Company, the Colorado Division of Parks and Wildlife and the Parks and Wildlife Commission (formerly Colorado Division of Wildlife and Wildlife Commission), the Colorado Water Conservation Board, the City of Cripple Creek, the City of Colorado Springs, acting through Colorado Springs Utilities, Southeastern Colorado Water Conservancy District, and Beaver Park Water, Inc. On November 4, 2010, the Water Court granted leave for the State and Division Engineers to intervene and accepted the Engineers' Statement of Opposition for filing. A timely Statement of Opposition was filed after publication of the First Amended Application in Case No. 02CW122 by Upper Arkansas Water Conservancy District.

1.8 Timely Statements of Opposition were filed in Case No. 10CW31 by Canon Heights Irrigation and Reservoir Company, Pisgah Reservoir and Ditch Company and Catlin Canal Company, the Colorado Water Conservation Board, the City of Cripple Creek, the State and Division Engineers, the City of Colorado Springs, acting through Colorado Springs Utilities, and Beaver Park Water, Inc.

1.9 The following parties have withdrawn their Statements of Opposition or have entered a stipulated settlement with CC&V that has been approved by the Court:

1.9.1 Colorado Division of Parks and Wildlife and the Parks and Wildlife Commission (together, "CPW"), by Order entered May 1, 2006. CPW filed an Amended Statement of Opposition on October 31, 2012, then entered a stipulated settlement with CC&V that was approved by Order entered September 16, 2016.

1.9.2 The City of Colorado Springs, acting through Colorado Springs Utilities, by Order entered December 17, 2013.

1.9.3 Catlin Canal Company, by Order entered January 23, 2014.

1.9.4 Pisgah Reservoir and Ditch Company, by Order entered January 23, 2014.

1.9.5 Southeastern Colorado Water Conservancy District, by Order entered June 3, 2014.

1.9.6 Colorado Water Conservation Board, by Order entered November 28, 2016.

1.9.7 State and Division Engineers, by Order entered December 16, 2016.

1.9.8 Beaver Park Water, Inc., by Order entered December 21, 2016.

1.9.9 Upper Arkansas Water Conservancy District, by Order entered January 17, 2017.

1.9.10 Canon Heights Irrigation and Reservoir Company, by Order entered March 16, 2017.

1.10 This matter was re-referred to the water judge on June 19, 2014.

Plan for Augmentation

2. Structures to be augmented.

2.1 Names of structures to be augmented.

CC&V operates a surface mining operation (the “Cresson Project”) in Teller County near Victor, Colorado. CC&V has obtained a reclamation permit for the Cresson Project operations as set forth in C.R.S. § 34-32-109. Operation of the mine may result in a reduction of the infiltration or runoff of precipitation, resulting in a decrease in the amount of water available to downstream users. The general location of the Cresson Project is depicted in **Figure 1**. This Plan for Augmentation (“Plan”) addresses the following activities or facilities within the Cresson Project that may require augmentation:

2.1.1 Facilities or areas underlain with an impermeable liner or other impervious surface, including leach pads and lined containment cells (“Lined Areas”).

2.1.2 Sediment detention ponds in the Fourmile Creek basin (“Fourmile Sediment Detention Ponds”).

2.1.3 Surface mines; sediment detention ponds and the catchment areas contributing storm water to those ponds; and overburden storage areas in the Beaver Creek basin (“Beaver Creek Mine Features”)

2.1.4 The system(s) that pump(s) native ground water from the underdrains and spring collection pipes back to the mine facilities in the Fourmile Creek basin (“Pump-Back System”).

2.2 Location of structures to be augmented.

The structures to be augmented may be located anywhere within the Cresson Project, described as property owned or acquired by CC&V, its subsidiaries, successors, or assigns, in Sections 7, 8, 9, 16, 17, 18, 19, 20, 21, 28, 29, 30, and 31, Township 15 South, Range 69 West of the 6th P.M.; Section 6, Township 16 South, Range 69 West of the 6th P.M.; and Sections 13, 24, 25, and 36, Township 15 South, Range 70 West of the 6th P.M., Teller County, Colorado. CC&V may change the size, specific location, and use of the structures to be augmented within the boundaries of the Cresson Project.

3. Water rights to be used for replacement.

Water to be used for replacement of out-of-priority depletions will include: (i) water purchased through contracts with the City of Victor and/or the City of Colorado Springs; (ii) water rights available pursuant to pending water court applications for conditional water rights and exchange rights; (iii) water leased now or in the future from the Pueblo Board of Water Works or the Upper Arkansas Water Conservancy District; and (iv) other water rights legally available for replacement purposes, as more fully set forth below.

3.1 City of Victor water. CC&V has an agreement with the City of Victor that provides for delivery of up to 1300 acre-feet ("AF") per year of water to the Cresson Project. This water will be derived from any of the "Altman" water rights owned by the City of Victor and available for this use. The "Altman" water rights owned by the City of Victor are summarized in **Table 1**. Up to 614 AF of water derived from the "Altman" water rights owned by the City of Victor may be released to replace out-of-priority depletions annually pursuant to this plan; however, this limitation on the amount of water that may be released to replace out-of-priority depletions does not limit the use of the "Altman" water rights owned by the City of Victor for the uses decreed in Case No. 2637, "domestic, manufacturing, municipal, mining, sprinkling, fire protection, power, and household purposes, and other kindred beneficial uses."

Table 1: City of Victor “Altman” Water Rights			
Name of Right	Appropriation Date	Adjudication Date	Amount
Glendale Ditch	4-15-1861	2-03-1894	1.0 cfs ¹
Callen Ditch	5-30-1861	2-03-1894	
Upper & Lower Pipelines	9-24-1893	2-14-1916	1.0 cfs
Upper Reservoir	9-24-1893	2-14-1916	7.982 AF
Middle Reservoir	9-24-1893	2-14-1916	1.535 AF
Lower Reservoir	9-24-1893	2-14-1916	12.28 AF

3.2 Colorado Springs water. CC&V also has an agreement with Colorado Springs Utilities titled “Amended and Restated Agreement for the Purchase of Water,” dated May 31, 2000, as amended by that certain Addendum executed on or about June 1, 2015 (“CS-U Agreement”), to purchase fully consumable water as a source of replacement water and will release this water to replace out-of-priority depletions if needed. This water could be derived from any water right described in Table 2. Use of other sources of replacement leased from Colorado Springs Utilities may only be added to this plan under the procedures of paragraph 3.6. CC&V has purchased water from this source in multiple years since 2008. The use of water purchased by CC&V from Colorado Springs Utilities pursuant to the CS-U Agreement will be subject to all of the terms and conditions of the CS-U Agreement as it may be modified or replaced in the future. Without limiting the applicability of all other provisions of the CS-U Agreement, the parties agree that fully consumable water purchased pursuant to the CS-U Agreement will be used, directly and by exchange, strictly in accordance with the terms of the CS-U Agreement, and nothing in this Decree alters or amends the terms of the CS-U Agreement.

¹ The City owns 0.296 cfs in the Glendale Ditch and 0.92 cfs in the Callen Ditch. In Case No. 2637, the diversions under the two rights are limited to a total of 1.0 cfs.

**Table 2: Fully Consumable Water Provided by
Colorado Springs Utilities**

Name of Right	Source	Case Nos.
Colorado Springs' fully consumable sewerred and non-sewerred return flows	Exchange to Colorado Springs' Pikes Peak Collection System – South Slope	84CW203, 86CW118, 89CW36

3.3 Exchanges. CC&V has applied for conditional water rights and exchange rights in Case No. 98CW115, Water Division 2, and has a decree for conditional and absolute water rights and exchange rights as a co-applicant with the City of Victor in Case No. 10CW98, Water Division 2. Any rights identified in this Decree may be used to replace out-of-priority depletions by means of the exchanges described in Case Nos. 98CW115 and 10CW98. The Court may authorize CC&V to use additional or alternative supplies of replacement water by means of the exchanges described in Case Nos. 98CW115 and 10CW98 pursuant to the procedure described in Section 3.6 below.

3.4 Fully consumable water owned or controlled by the Pueblo Board of Water Works (the "PBWW").

3.4.1 CC&V leased 100 AF of fully consumable water from this source on February 16, 2011, and entered a Water Lease Agreement dated April 17, 2014 for 400 AF per year of fully consumable water from this source. CC&V will release this water to replace out-of-priority depletions if needed. This water could be derived from any water right described in Table 3. Use of other sources of replacement leased from PBWW may only be added to this plan under the procedures of paragraph 3.6.

Table 3: Fully Consumable Water Provided by Pueblo Board of Water Works		
Name of Right	Source	Case Nos.
Ewing Placer Ditch	Eagle River basin, tributary of Colorado River basin	CA 507 (Eagle County); 90CW340 (Div 5) consolidated with 90CW052 (Div 2)
Warren E Wurts Ditch (a/k/a Wurtz Ditch)	Eagle River basin, tributary of Colorado River basin	CA 963 (Eagle County); 90CW340 (Div 5) consolidated with 90CW052 (Div 2)
Busk Ivanhoe System	Roaring Fork River basin, tributary of Colorado River basin	CA 2621, 3082 & 4033 (Garfield County); 90CW340 (Div 5) consolidated with 90CW052 (Div 2)
Independence Pass Transmountain Diversion System	Roaring Fork River basin, tributary of Colorado River basin	CA 3082 (Garfield County); W-1901 (Div 2)
Fully Consumable Return Flows	From the four sources listed above	84CW177(A) & (B) (Div 2); 86CW111(A) & (B) (Div 2)

3.4.2 The PBWW may not deliver to CC&V any Fryingpan-Arkansas Project Water. The PBWW stores non-Project Water in Pueblo Reservoir pursuant to Contract No. 00XX6C0049 between the United States and the PBWW. That contract provides that the water stored thereunder will be used only for municipal and industrial purposes within the PBWW's service area, unless the Secretary of the Interior or his duly authorized representative authorizes use of such water for other purposes or at other

places of use. CC&V's place of use of water is outside of the boundaries of both the Southeastern Colorado Water Conservancy District and the current municipal and industrial service area of the PBWW. Thus, the PBWW will not deliver its non-Project Water stored in Pueblo Reservoir to CC&V's places of use unless the Secretary of the Interior or his duly authorized representative authorizes use of such water for the mining, industrial and augmentation purposes as decreed herein.

3.5 Fully consumable water owned or controlled by the Upper Arkansas Water Conservancy District. CC&V leased 100 AF of fully consumable water from this source in 2013, and plans to lease this water in the future and release this water to replace out-of-priority depletions if needed. This water could be derived from any water right described in Table 4. Use of other sources of replacement leased from Upper Arkansas Water Conservancy District may only be added to this plan under the procedures of paragraph 3.6.

Table 4: Fully Consumable Water Provided by Upper Arkansas Water Conservancy District		
Name of Right	Source	Case Nos.
White Ditch	South Arkansas River tributary	91CW19
Fully consumable water owned by the City of Salida and leased to UAWCD	South Arkansas River tributary	87CW61, 04CW125, 04CW96
Twin Lakes Reservoir and Canal Company shares (Independence Pass Transmountain Diversion System)	Roaring Fork River, tributary of Colorado River basin; and Lake Creek in the Arkansas River basin	CA 3082, W-1901, CA 2346, W-3936
Fully consumable water owned by the Town of Poncha Springs and leased to UAWCD	South Arkansas River	07CW111
Water leased to UAWCD from Pueblo Board of Water Works from one of the above-identified PBWW sources	See separate list of PBWW sources	

3.6 Other water rights. Pursuant to C.R.S. § 37-92-305(8), the Court may authorize CC&V to use additional or alternative supplies of replacement water, including water leased on a yearly or less frequent basis, in this Plan. This Section sets forth the procedure under which these sources may be added to this Plan after the initial decree. These procedures are adequate to prevent injury to other water rights that might otherwise result from the addition of these sources to this Plan.

3.6.1 New Source. CC&V may use a water source not identified as an augmentation supply in this Decree as an additional or alternative augmentation supply for this Plan only if such source is part of a substitute water supply plan approved pursuant to § 37-92-308 or an interruptible supply agreement under C.R.S. § 37-92-309, or if such source is decreed for augmentation or replacement use. Hereinafter, a water source not identified as an augmentation supply in this Decree that CC&V

seeks to use as an additional or alternative augmentation supply for this plan shall be referred to as a "New Source."

3.6.2 Notice of New Source. Unless its use may be approved by the State Engineer administratively pursuant to C.R.S. § 37-92-308, if applicable, or any amendment or replacement thereof, no New Source may be used under this Section 3.6 unless CC&V first notifies the Court, the opposers, and the State and Division Engineers of its intent to use the New Source to augment depletions under this Decree. Such "Notice" shall state: (1) the water right of the New Source by name and decree; (2) the annual and monthly amount of water available to CC&V from the water right; (3) the manner by which the New Source will be used to augment depletions in time, location and amount; (4) the date of initial use of the New Source within this Plan; (5) duration of use of the New Source; (6) evidence that the claimed amount of water is available for use in this Plan and will not be used by any other person; and (7) the manner in which CC&V will account for use of the New Source and make any required return flow replacements. The Notice shall also specifically include a request that the Court enter an Order either affirming or denying CC&V's proposal, and that said Order be attached to the final decree approving this Plan. In addition to providing notice to the opposers through ICCES, Applicants shall send the Notice to the State Engineer and Division Engineer for Water Division 2 by email.

3.6.3 Objections to use of New Source. If any person wishes to object to the addition of the noticed New Source to this Plan, a written objection must be filed with the Court. If the Notice requests temporary use of the New Source for a period of one year or less, the written objection must be filed within 35 days after the date the Notice was given by CC&V. If the Notice requests use of the New Source for a period of greater than one year or permanently, the written objection must be filed no later than the last day of the second month following the month in which the Notice is provided. If no objection is so filed, the Court shall promptly enter an Order affirming CC&V's immediate use of the noticed New Source. If an objection is so filed, then CC&V may not use the noticed New Source until

the Court has determined whether and under what terms and conditions the New Source may be used in this Plan.

3.6.4 Hearing on use of New Source. Where an objection has been filed to the use of a New Source as an additional or alternative source for this Plan, the Court shall promptly schedule a hearing to determine whether and under what terms and conditions the New Source may be used in this Plan. The Court shall conduct whatever proceedings are needed to appropriately address and resolve the disputed issues. At such hearing, the Court shall impose such terms and conditions as necessary to prevent injury to vested water rights and decreed conditional rights. CC&V shall bear the initial burden of proof that no injury to vested water rights and decreed conditional water rights will result from use of the New Source in this Plan. If the Notice requested temporary use of the New Source in this Plan for a period not to exceed one year, then the Court shall grant an expedited hearing.

4. Decreed Uses of Replacement Sources.

The replacement water sources are fully consumable, or their decrees include or will include use for mining, milling, manufacturing, industrial, augmentation, or replacement purposes. These sources are adequate or will be adequate to allow the use of the water for the purposes set forth in this Decree. Sources of replacement that may be leased from PBWW, CS-U, and UAWCD for use in this plan ("leased sources") must be decreed for replacement purposes and must be legally and physically available for use in this plan. CC&V's use of leased sources must not cause an expansion of diversions beyond those contemplated by the decrees for the leased sources, and cannot be used to make absolute any conditional portions of leased sources.

5. Description of Plan for Augmentation.

5.1 Out-of-priority depletions.

Operation of the Cresson Project will result in a reduction in the infiltration or runoff of precipitation tributary to streams, including Beaver Creek and Fourmile Creek, which are tributary to the Arkansas River. The reduction in infiltration or

runoff will result in a decrease in the amount of water available to downstream users. The configuration of the Cresson Project is dictated by numerous factors, including CC&V's mining permit, future discoveries, commodities prices, mine economics, advances in technologies, and mine reclamation. Based on these factors, CC&V may change the size, location, and use of structures to be augmented in this Plan within the boundaries of the Cresson Project described above. **Figure 2** depicts the existing Cresson Project facilities and augmentation station locations.

Also shown on **Figure 2** are: (i) the physical and infiltration boundaries of the porous diatreme complex, a geologic feature that was emplaced and fractured by ancient volcanic activity; and (ii) the historical topographic divide between the Fourmile Creek basin and the Beaver Creek basin that crosses the diatreme complex. As used in this Plan, the "Diatreme Area" will refer to the area within the larger infiltration boundary of the diatreme complex shown on **Figure 2**.

Historically, precipitation falling on the Diatreme Area generally overflowed into tributaries of Fourmile Creek along the western and southwestern physical boundary of the diatreme complex, which is lower in elevation than the eastern physical boundary of the diatreme complex within the Beaver Creek basin. Currently, almost all of the precipitation falling on the Diatreme Area is captured by the diatreme complex and flows into Fourmile Creek via the Carlton Tunnel, built between 1939 and 1941, which drains the diatreme complex.

Due to the influences of the physical boundary of the diatreme complex, the Carlton Tunnel, and the relatively low precipitation at the Cresson Project where surface elevations are in excess of 9200 feet above sea level, there are no continuously flowing live streams within the Cresson Project area. Therefore, the majority of any depletions associated with the Cresson Project occur to the ground water system, almost all of which would be tributary to Fourmile Creek with a relatively small portion contributing to the Beaver Creek basin.

Based on the hydrogeology of the area, this Plan divides the Cresson Project into the following four catchment areas (as illustrated on **Figure 3**) for calculating depletions and required replacements for the Lined Areas, Fourmile Sediment Detention Ponds, Beaver Creek Mine Features, and the Pump-Back System:

5.1.1 Fourmile Creek Diatreme Area – defined as that part of the Diatreme Area lying on the Fourmile Creek side of the historical topographic divide between the Fourmile Creek and the Beaver Creek basins. Prior to Cresson Project operations, 70% of the precipitation falling on this area was consumed, and the other 30% generally infiltrated into the diatreme complex and flowed out to Fourmile Creek.

5.1.2 Outside the Diatreme Area in Fourmile Creek basin – defined as any area in the Fourmile Creek basin that is outside the Diatreme Area. Prior to Cresson Project operations, 70% of the precipitation falling on this area was consumed, and the other 30% ran off or infiltrated into the various gulches and contributed to the flow of Fourmile Creek.

5.1.3 Upper Grassy Valley – located on the Beaver Creek side of the historical topographic divide between the Fourmile Creek and the Beaver Creek basins, generally lying topographically upgradient of the easternmost boundary of the Diatreme Area as more specifically delineated in **Figure 3**. Prior to Cresson Project operations, 70% of the precipitation falling on this area was consumed, 28.6% generally infiltrated into the diatreme complex and flowed out to Fourmile Creek, with the other 1.4% running off or infiltrating into Grassy Valley downgradient of the easternmost boundary of the Diatreme Area and contributing to the flow of Beaver Creek. These allocations of the unconsumed precipitation apply to areas in Upper Grassy Valley that are outside the Diatreme Area because any runoff from precipitation falling on such areas flows into Grassy Creek, which loses water to the diatreme complex as Grassy Creek traverses across the Diatreme Area in Upper Grassy Valley.

5.1.4 Lower Grassy Valley – defined as that part of the Grassy Valley watershed downgradient of Upper Grassy Valley. Prior to Cresson Project operations, 70% of the precipitation falling on this area was consumed, and the other 30% ran off or infiltrated into Grassy Valley and contributed to the flow of Beaver Creek.

5.2 Lined Areas.

Gold is recovered from ores using an extraction or leach process in which a weak cyanide solution is applied to the mined ore and allowed to percolate down through the ore, at which point the solution is captured and cycled through a beneficiation facility to recover the gold. To contain the solution and protect the environment, the Cresson Project's "leach pads" (also referred to as leach facilities) are lined with an impervious multiple liner system. These leach pads also intercept and contain naturally occurring precipitation. In addition, other areas at the Cresson Project, such as the fuel farm and an external storage pond, are underlain with an impermeable liner, and also intercept and contain naturally occurring precipitation. These Lined Areas cause a depletion of infiltration or runoff that would contribute to the natural stream flows of Fourmile Creek and Beaver Creek. This Plan addresses the need to replace those depletions to prevent injury to other water rights in the Fourmile Creek and Beaver Creek basins.

The Lined Areas will change incrementally as a result of, for example, the construction of new areas underlain with an impermeable liner (such as additional leaching facilities), and reclamation of existing leach pads. This Plan addresses replacement based upon the operations at the Cresson Project and provides for monthly monitoring of the size and location of the Lined Areas. In the event that Lined Areas are reclaimed, replacement will no longer be required. The accounting forms will reflect changes in the size and location of the Lined Areas. CC&V will provide sufficient amounts of water to replace the out-of-priority depletions caused by the interception of natural precipitation by these Lined Areas.

5.2.1 Pursuant to C.R.S. § 37-92-305(12)(c), the amount of replacement water provided under this part of the Plan will equal the precipitation upon the Lined Areas, less the historical evaporation and evapotranspiration that would have occurred prior to construction of the Lined Areas. The parties agree that 70% of total precipitation was historically consumed by evaporation and evapotranspiration prior to construction of the Lined Areas.

5.2.2 The amount of historical losses caused by evaporation and evapotranspiration was estimated for the Cresson Project area by comparing historical precipitation amounts within the Diatreme Area to measured Carlton Tunnel outflows since these outflows are generally reflective of the amount of unconsumed precipitation falling on the Diatreme Area. For the period from 1992 through 2015, the average volume of flow from the Carlton Tunnel was approximately 30% of the average volume of precipitation falling on the Diatreme Area. As a result, CC&V's replacement obligation under this Plan for Lined Areas is equal to 30% of the precipitation falling on the Lined Areas.

5.2.3 Lined Areas occur, or may occur, in all four of the above-described catchment areas of the Cresson Project and depletions and replacements will be calculated as follows:

5.2.3.1 Lined Areas within the Fourmile Creek Diatreme Area. Prior to Cresson Project operations, all of the precipitation falling on the Fourmile Creek Diatreme Area infiltrated into the diatreme complex. Given the generally constant flow of water from the Carlton Tunnel throughout the year, any depletions caused by Lined Areas within the Fourmile Creek Diatreme Area will also generally occur on an approximately constant year-round basis. Thus, for Lined Areas within the Fourmile Creek Diatreme, depletions for each month will be calculated by multiplying the surface area of the Lined Areas by 30% of the precipitation measured at the Rigi weather station during the prior 12 months, and that value will be divided by 12. Replacements of these calculated depletions for each month will be made to Fourmile Creek during the following month.

5.2.3.2 Lined Areas located Outside the Diatreme Area in Fourmile Creek Basin. These Lined Areas are, and will continue to be, located in the headwaters of a number of gulches (*e.g.*, Arequa Gulch, Squaw Gulch) that are normally dry tributaries of Cripple Creek, which is a tributary of Fourmile Creek. Cripple Creek carries a

year-round stream flow, except perhaps during occasional periods in drought years or at times when the stream is fully frozen. Given the headwaters location of these Lined Areas, the monthly timing of depletions is attenuated. Under these circumstances, it is appropriate to calculate depletions on an annual basis but replace those depletions on a monthly schedule that mimics the seasonal natural stream flow in Fourmile Creek, with the largest portion of the replacement to be provided during spring runoff. Thus, for Lined Areas located Outside the Diatreme Area in Fourmile Creek Basin, depletions for each month will be calculated by multiplying the surface area of the Lined Areas by 30% of the precipitation measured at the Rigi weather station during the prior 12 months, and that value will be multiplied by the “Percent of Annual Total” for the applicable month as shown in the following **Table 5**:

Table 5: Percent of Annual Total											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2.9	2.4	4.0	8.8	21.5	15.5	10.7	13.5	7.5	5.8	4.4	3.0

Replacements of these calculated depletions for each month will be made to Fourmile Creek during the following month.

5.2.3.3 Lined Areas in Upper Grassy Valley. Almost all of the precipitation falling on Upper Grassy Valley historically infiltrated into the diatreme complex and, in turn, flowed to Fourmile Creek. However, during high precipitation events, some of that precipitation may have run into Lower Grassy Valley which is a normally dry tributary of West Beaver Creek, which is a tributary of Beaver Creek. By comparing precipitation to outflow from Upper Grassy Valley, the amount of runoff that historically flowed to Beaver Creek as a result of precipitation within Upper Grassy

Valley was calculated to be about 1.4% of the precipitation. As a result, the total amount of replacement water for depletions caused by all Lined Areas within Upper Grassy Valley will be calculated by multiplying the surface area of those Lined Areas by 30% of the precipitation as measured at the Grassy Valley station, but that replacement water will be divided between Fourmile Creek and Beaver Creek as follows:

5.2.3.3.1 For Fourmile Creek. Depletions for each month will be calculated by multiplying the surface area of the Lined Areas by 28.6% of the precipitation measured at the Grassy Valley weather station during the prior 12 months, and that value will be divided by 12. Replacements of these calculated monthly depletions will be made to Fourmile Creek during the following month.

5.2.3.3.2 For Beaver Creek. Depletions for each month will be calculated by multiplying the surface area of the Lined Areas by 1.4% of the precipitation measured at the Grassy Valley weather station for that month. To mimic the seasonal natural stream flow in Beaver Creek: (a) the calculated monthly depletions for the months of November through April will be aggregated, and half of those aggregated monthly depletions will be replaced to Beaver Creek in each of the following months of May and June; and (b) replacements to Beaver Creek of the calculated monthly depletions for all other months will be made in the following month (*e.g.*, calculated monthly depletion for May will be replaced in June).

5.2.3.4 Lined Areas in Lower Grassy Valley. All of the unconsumed precipitation falling in this area contributes to the flow of Beaver Creek. Thus, for these Lined Areas, depletions for each month will be calculated by multiplying the surface area of the Lined Areas by 30% of the precipitation measured at the Grassy Valley weather

station for that month. To mimic the seasonal natural stream flow in Beaver Creek: (a) the calculated monthly depletions for the months of November through April will be aggregated, and half of those aggregated monthly depletions will be replaced to Beaver Creek in each of the following months of May and June; and (b) replacements to Beaver Creek of the calculated monthly depletions for all other months will be made in the following month (*e.g.*, calculated monthly depletion for May will be replaced in June).

5.2.4 A monthly accounting form has previously been developed and used to report to the State Engineer the Lined Areas acreage, the calculated stream depletions, and the amount of replacement water deliveries. This form will be updated monthly to identify the then-current size and location of the Lined Areas, how the depletions and replacements will be calculated to conform to this Plan, and where the replacement water for each Lined Area will be delivered.

5.2.5 Mine development or reclamation activities in the future may include removing or perforating Lined Areas which, in turn, will allow infiltration or runoff of precipitation. Following such removal or perforation, these Lined Areas will no longer intercept or contain precipitation and as a result will no longer cause depletions of natural infiltration or runoff to Fourmile Creek or Beaver Creek. Therefore, CC&V's replacement obligations under this Plan for any particular Lined Area will end when that Lined Area is removed or perforated. CC&V must provide two weeks advance notice, in writing, to the Division Engineer prior to claiming a reduced replacement obligation associated with the removal or perforation of any Lined Area. After such removal or perforation, CC&V must submit documentation to the Division Engineer that confirms or demonstrates such Lined Area removal or perforation.

5.3 Fourmile Sediment Detention Ponds.

CC&V has developed a storm water management plan for the Cresson Project. The storm water management plan includes construction of structures such as ditches and sediment detention ponds to collect and capture runoff of

precipitation and allow settling of solids. The majority of the storm water controls are either conveyances (*e.g.*, ditches, channels, culverts) that direct water from one location to another without impoundment, or are relatively small in size and do not detain water for long periods of time or are not in place for extended periods. However, the sediment detention ponds in the Fourmile Creek basin that have been designated as the Fourmile Sediment Detention Ponds have been intentionally oversized to contain the runoff volume expected from two consecutive 10-year, 24-hour precipitation events as part of the Enhanced Management Practices (“EMP”) in place. These ponds are predominantly excavations with embankments of limited height that have spillways and permeable bottoms to allow release and percolation of collected storm water. There may be short periods (less than thirty (30) days), however, when water may be stored in these ponds. Thus, these Fourmile Sediment Detention Ponds may cause out-of-priority depletions that need to be replaced. Specifically, pursuant to the policy outlined in the Division of Water Resources Administrative Approach for Storm Water Management (May 2011), any water captured by a detention pond must be released from the pond within 72 hours after the precipitation event. Based on the unique configuration and hydrogeology of the Fourmile Sediment Detention Ponds, when these ponds capture precipitation runoff and contain it for more than three days after a precipitation event, all evaporative losses from this stored water, dating back to the precipitation event, must be replaced. This Section of the Plan addresses the need to replace those depletions to prevent injury to other water rights in the Fourmile Creek basin. The following methodology will apply to all of the Fourmile Sediment Detention Ponds regardless of whether they are inside or outside the Diatreme Area.

5.3.1 Evaporative depletions from the Fourmile Sediment Detention Ponds will be calculated only for those ponds that have observable water in them on the fourth day after a significant precipitation event and only for the months of May through October since it is assumed that little to no storm water is generated or stored during the months of November through April which would result in evaporative losses. For the purposes of this section 5.3.1, a significant precipitation event will be referred to as

an “Event” and will be determined on the basis of precipitation measured at the Rigi weather station. For each Event, the depletions will be calculated by: (a) multiplying the maximum surface area of the ponds by the applicable Daily Net Pond Evaporation Rates set out in section 5.3.2 below for each day that water is observed in the ponds from and after that Event (or 30 days from and after that Event if daily observations are not made) to obtain the daily evaporation amounts; and (b) adding those daily evaporation amounts to obtain the “Evaporative Depletion” for such Event. Replacements for the Evaporative Depletion for an Event will be made to Fourmile Creek during the month following the calculation of the Evaporative Depletion for that Event.

5.3.2 Daily Net Pond Evaporation Rates were determined using NOAA Technical Report NWS 33, Evaporation Atlas for the Contiguous 48 United States, June 1982. This is the procedure adopted by the Colorado Division of Water Resources in the Guidelines. Annually, at the Cresson Project, the Free Water Surface evaporation is 38 inches, effective precipitation is 13.5 inches, and net evaporation is 24.6 inches per unit area which results in the Daily Net Pond Evaporation Rates for each month set out in **Table 6** below.

Table 6: Daily Net Pond Evaporation Rates (inches)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Daily Values	0	.022	.040	.076	.113	.158	.108	.067	.109	.071	.040	.006

5.3.3 Future mine development or reclamation activities may include removing some or all of the Fourmile Sediment Detention Ponds which will eliminate any out-of-priority depletions associated therewith. Therefore, CC&V’s replacement obligations under this Plan for any particular Fourmile Sediment Detention Pond will terminate when that pond is removed. CC&V must provide two weeks advance notice, in

writing, to the Division Engineer prior to claiming a reduced replacement obligation associated with the removal of any sediment detention pond.

5.4 Beaver Creek Mine Features.

CC&V has constructed, and may construct in the future, surface mines; sediment detention ponds and the catchment areas contributing storm water to those ponds; and overburden storage areas in the Beaver Creek basin which are collectively referred to herein as “Beaver Creek Mine Features.” Existing Beaver Creek Mine Features are depicted in **Figure 2**. These Beaver Creek Mine Features will result in a reduction in the amount of runoff that would have reached the Beaver Creek basin, but that reduction will vary depending on the location (Upper or Lower Grassy Valley) of the particular Beaver Creek Mine Feature as described below.

5.4.1 Upper Grassy Valley. During mining operations and prior to reclamation, all of the Beaver Creek Mine Features will tend to capture all of the unconsumed precipitation and direct it to the diatreme complex which, in turn, will reduce the runoff in the Beaver Creek basin. Thus, for these features, depletions from and replacements to Beaver Creek will be addressed as follows:

5.4.1.1 Depletions for each month will be calculated by multiplying the surface area within Upper Grassy Valley of all the Beaver Creek Mine Features by 1.4% of the precipitation measured at the Grassy Valley weather station for that month. To mimic the seasonal natural stream flow in Beaver Creek: (a) the calculated monthly depletions for the months of November through April will be aggregated, and half of those aggregated monthly depletions will be replaced to Beaver Creek in each of the following months of May and June; and (b) replacements to Beaver Creek of the calculated monthly depletions for all other months will be made in the following month (*e.g.*, calculated monthly depletion for May will be replaced in June).

5.4.1.2 Reclamation of these features will return them to their pre-mining condition which, in turn, will eliminate any depletions to the Beaver Creek basin. Thus, no depletion calculations or replacements will be made for any Beaver Creek Mine Feature in Upper Grassy Valley once that Beaver Creek Mine Feature has been reclaimed. CC&V must provide two weeks advance notice, in writing, to the Division Engineer prior to claiming a reduced replacement obligation associated any reclaimed surface mine feature.

5.4.2 Lower Grassy Valley.

5.4.2.1 Surface mines in Lower Grassy Valley. For purposes of this Plan, CC&V has made the conservative assumption that all of the unconsumed precipitation will be captured by these surface mines and lost to Beaver Creek. As a result of this assumed loss, these surface mines will reduce the historic runoff in the Beaver Creek basin during mining operations and prior to reclamation. Thus, depletions and replacements will be addressed as follows:

5.4.2.1.1 Depletions for each month will be calculated by multiplying the surface area of the surface mines in Lower Grassy Valley by 30% of the monthly precipitation measured at the Grassy Valley weather station. To mimic the seasonal natural stream flow in Beaver Creek. CC&V will use the following method to develop a schedule for replacements to Beaver Creek. (a) CC&V will aggregate the calculated monthly depletions for the months of November through April. (b) Before May 1 of each year, CC&V will confer with Beaver Park Water to develop a mutually-agreeable schedule for CC&V to release water to replace aggregated winter depletions. The schedule will consider snowpack, projected runoff, streamflow, water available for CC&V mining operations and augmentation replacements, and Beaver Park's diversion capacity. CC&V will notify the

Water Commissioner and deliver replacement water using the agreed-upon schedule. If CC&V and Beaver Park Water are unable to agree to a release schedule, then two-thirds of the aggregated November through April monthly depletions will be replaced to Beaver Creek in May and one-third of those aggregated monthly depletions will be replaced to Beaver Creek in the first two weeks of June. (c) Replacements to Beaver Creek of the calculated monthly depletions for May through October will be made in the following month (*e.g.*, calculated monthly depletion for May will be replaced in June).

5.4.2.1.2 Reclamation of the surface mines in Lower Grassy Valley will return them to their pre-mining condition which, in turn, will eliminate any depletions to the Beaver Creek basin. Thus, no depletion calculations or replacements will be made for any surface mine in Lower Grassy Valley once it has been reclaimed. CC&V must provide two weeks advance notice, in writing, to the Division Engineer prior to claiming a reduced replacement obligation associated any reclaimed surface mine feature.

5.4.2.2 Sediment detention ponds and the catchment areas contributing storm water to those ponds in Lower Grassy Valley. Depletions attributable to these sediment detention ponds and catchment areas will be limited to evaporative losses of storm water captured by the sediment detention ponds. As a result, depletions and replacements will be addressed as follows:

5.4.2.2.1 Evaporative depletions from these sediment ponds will be calculated only for those ponds that have observable water in them on the fourth day after a significant precipitation event and only for the months of May through October since it is assumed that little to no storm water is generated or stored during the months of

November through April which would result in evaporative losses. For the purposes of this section 5.4.2.2.1, a significant precipitation event will be referred to as an “Event” and will be determined on the basis of precipitation measured at the Grassy Valley weather station. For each Event, the depletions will be calculated by: (a) multiplying the maximum surface area of the ponds by the applicable Daily Net Pond Evaporation Rates set out in Section 5.3.2 above for each day that water is observed in the ponds from and after that Event (or 30 days from and after that Event if daily observations are not made) to obtain the daily evaporation amounts; and (b) adding those daily evaporation amounts to obtain the Evaporative Depletion for such Event. Replacements for the Evaporative Depletion for an Event will be made to Beaver Creek during the month following the calculation of the Evaporative Depletion for that Event.

5.4.2.2.2 As of the date of this Decree, CC&V has not yet constructed any sediment ponds in Lower Grassy Valley. If CC&V constructs sediment ponds or other storm water management structures in Lower Grassy Valley in the future, CC&V will include information about the design of those structures in its annual report described in Section 7.2. The design information will include an assessment whether the structures may intercept groundwater or surface flow in the channel of Grassy Valley. The Court will retain jurisdiction as described in Section 9.7.3 for the purpose of reviewing the method for determining the amount of depletions associated with sediment ponds and other storm water management structures in Lower Grassy Valley.

5.4.2.2.3 Future mine development or reclamation activities may include removing some or all of these sediment detention ponds which will eliminate any out-of-priority depletions associated therewith. Therefore, CC&V’s

replacement obligations under this Plan for any particular sediment detention pond will terminate when that pond is removed. CC&V must provide two weeks advance notice, in writing, to the Division Engineer prior to claiming a reduced replacement obligation associated with the removal of any sediment detention pond.

5.4.2.3 Overburden storage areas in Lower Grassy Valley. These areas should not cause any depletions to the Beaver Creek basin and, as such, no replacements will be made for them.

5.5 Pump-Back System.

A water quality management activity at the Cresson Project that may necessitate delivery of replacement water is the Pump-Back System for native ground water collected by the underdrains and spring collection system(s). The Pump-Back System can collect such ground water from the underdrains and spring collection system(s), and then deliver that ground water to one of several Cresson Project facilities. This Pump-Back System is operated on an as-needed basis. The Pump-Back System has, or will have, a flow meter with a totalizer on it for measurement of the quantity of water that is collected and delivered to the Cresson Project facilities.

5.5.1 Pump-Back System flows are dependent upon the timing and amount of precipitation received at the Cresson Project. Based upon monitoring by CC&V, pump-back would typically only be necessary after significant precipitation events.

5.5.2 The water pumped back will be used in the mining operations and CC&V will replace water as follows:

5.5.2.1 CC&V will replace all water pumped back in the Fourmile Diatreme Area, Outside the Diatreme Fourmile Creek Basin, and Upper Grassy Valley to the Fourmile Creek Basin.

5.5.2.2 CC&V will replace all water pumped back in Lower Grassy Valley to the Beaver Creek Basin.

5.5.3 The annual amount will vary, but the maximum observed annual amount over the period 2003–2012 was approximately 35 acre-feet.

5.6 Delivery of Replacement Water for All Uses.

As described below, out-of-priority depletions in the Fourmile Creek and Beaver Creek basins resulting from operation of the Lined Areas, Fourmile Sediment Detention Ponds, Beaver Creek Mine Features, and the Pump-Back System within the Cresson Project will be replaced upstream of the calling water right so as to prevent injury to other water rights.

5.6.1 Fourmile Creek basin.

For depletions to the Fourmile Creek basin, replacement releases may be made at the following locations:

5.6.1.1 Bull Hill augmentation station. The location of the Bull Hill augmentation station is at the City of Victor's raw water supply pipeline, near the headwaters of Wilson Creek (a tributary of Fourmile Creek) within the Diatreme Area. All of the water released at the Bull Hill augmentation station percolates into the ground within one-half mile distance downhill from the release point. The underground terminus of the Carlton Tunnel is located near the Bull Hill augmentation station. The water released at the Bull Hill augmentation station percolates down through the diatreme complex and is captured by the Carlton Tunnel on a generally constant year-round basis, and then flows into Fourmile Creek. The close proximity of the Bull Hill augmentation station to the underground terminus of the Carlton Tunnel ensures positive interception of the water released at the augmentation station and delivery of this water to Fourmile Creek. For purposes of this augmentation plan, CC&V will calculate deliveries to Fourmile Creek as one-third of the amount released from the Bull Hill

augmentation station in each of the three months starting with the month when the water is released.

5.6.1.2 Arequa Gulch augmentation station. The Arequa Gulch augmentation station is located near Arequa Gulch, which is tributary to Cripple Creek, and outside of the Diatreme Area drained by the Carlton Tunnel.

5.6.1.3 Fourmile Creek at the Carlton Tunnel Outlet, including but not limited to releases from Wright's Reservoir located on Fourmile Creek upstream of the Carlton Tunnel.

5.6.1.4 Fourmile Creek at the confluence with Cripple Creek, including but not limited to releases from Wright's Reservoir located on Fourmile Creek upstream of the confluence with Cripple Creek. This location is a short distance upstream of the Carlton Tunnel Outlet.

5.6.1.5 The Arkansas River upstream of the calling water right, including but not limited to deliveries at the confluence of the Arkansas River and Fourmile Creek. When replacement water under this Plan is delivered on the Arkansas River upstream of the confluence of the Arkansas River and Fourmile Creek, appropriate transit losses from the delivery location to the confluence of the Arkansas River and Fourmile Creek may be assessed by the Division Engineer.

5.6.1.6 At times when an exchange can be operated in accordance with the exchange rights in Case No. 98CW115, water may be delivered by exchange on Fourmile Creek to CC&V Diversion Point 3, as depicted on the map attached as Exhibit A to the decree in Case No. 98CW115, or water may be exchanged to Wright's Reservoir and delivered to Fourmile Creek as described in Section 5.6.1.4.

5.6.1.7 The Wilson Creek augmentation station, City of Victor bleeder valves, and the City of Victor wastewater treatment plant augmentation station, at the locations shown on **Figure 2**, and any location between or in the general vicinity of the Victor water treatment plant and wastewater treatment plant. The Wilson Creek augmentation station, City of Victor bleeder valves, and the City of Victor wastewater treatment plant augmentation station are capable of providing replacement water to Wilson Creek, which is tributary to Fourmile Creek. Water measured and released at these augmentation stations and bleeder valves will consist entirely of potable water in Victor's municipal water system, not wastewater. These sources will be used to supplement the releases from the Bull Hill augmentation station.

5.6.2 Beaver Creek basin.

For depletions to the Beaver Creek basin, replacement releases may be made at the following locations:

5.6.2.1 Grassy Creek augmentation station. The Grassy Creek augmentation station is located near Grassy Creek, a tributary of West Beaver Creek which is a tributary of Beaver Creek, at the City of Victor's raw water supply pump station. The Grassy Creek augmentation station has been used since 1992 for replacement releases under substitute water supply plans approved by the State Engineer. The Grassy Creek augmentation station is located downhill or downstream from the locations in the Cresson Project where depletions occur. Therefore, the transit losses for delivery of this replacement water into West Beaver Creek are less than the transit losses from the locations where the depletions occur. Water at the Grassy Creek augmentation station will be released by the Town of Victor in the appropriate time, location, and amount to replace the calculated depletions to Beaver Creek.

5.6.2.2 Altman augmentation station. The Altman augmentation station will be located on West Beaver Creek at the Altman

diversion structure. The Altman augmentation station will be located upstream of the confluence of Grassy Valley and West Beaver Creek, and therefore appropriate transit losses from the Altman augmentation station to the confluence may be assessed by the Division Engineer. Water will be measured and diverted through the Altman diversion structure and then measured and released by the Town of Victor from the Altman augmentation station in the appropriate time, location, and amount to replace the calculated depletions to Beaver Creek.

5.6.2.3 The Arkansas River. Replacement water may be delivered to the Arkansas River upstream of the calling water right, at locations including but not limited to the confluence of the Arkansas River and Beaver Creek. When replacement water under this Plan is delivered on the Arkansas River upstream of the confluence of the Arkansas River and Beaver Creek, appropriate transit losses from the delivery location to the confluence of the Arkansas River and Beaver Creek may be assessed by the Division Engineer.

5.6.2.4 If the volume of required replacement water to Beaver Creek under this plan for augmentation exceeds 100 acre-feet/year or 30 acre-feet in any given month, CC&V will equip the Grassy Valley and Altman augmentation stations with telemetry capabilities to the extent either of these augmentation stations is being used under this plan in the future. CC&V will make available data extracted from the telemetry system to Beaver Park Water upon request.

5.6.3 These augmentation locations will be operated to deliver water each month to match the replacement requirements of the Cresson Project operations as described in this Plan.

5.6.4 Due to the changing configuration of the Cresson Project and the small amounts of water involved, the water commissioner has the sole discretion to vary the timing and to aggregate the releases of replacement water so that they occur in amounts and at times when they will effectively reach downstream senior water rights. As part of this

aggregation, the water commissioner may allow replacements to be made up to one month after they are due, as the water commissioner determines, in his or her sole discretion, is appropriate to protect senior water rights from injury.

5.6.5 The actual configuration of the Cresson Project is subject to change. As a result, the amount of annual replacement water may also change. Therefore, CC&V will provide through accounting the current amount of replacement water needed using the methodologies described in this Plan. The methodology for calculating the amount of replacement water necessary with respect to each type of activity and facility at the Cresson Project requiring augmentation (Lined Areas, Fourmile Sediment Detention Ponds, Beaver Creek Mine Features, and the Pump-Back System) will remain the same, but the Lined Area size and location; or the size, number, and location of Fourmile Sediment Detention Ponds; or the size, number, and location of the Beaver Creek Mine Features; or the amount pumped from the Pump-Back System may change, thus altering the amount of replacement water needed to comply with the terms of this Plan. Such changes in configuration are anticipated and included in this Plan, and no modification or amendment of this Plan will be required for such changes. Such changes to the configuration and resulting changes in augmentation requirements, as well as required releases, will be accounted for using forms similar to those used in the past with the approval of the State Engineer. As described above, CC&V must provide at least two weeks written notification to the Division Engineer prior to claiming a reduced replacement obligation for any change in configuration, change in Lined Area, location, number, or size of sediment detention pond. CC&V must provide documentation of any such changes at the request of the Division Engineer.

6. Based on an analysis of the maximum projected out of priority depletions conducted for historical periods of above average, average, and below average precipitation conditions for each basin and the supply of replacement water that is expected to be available under those conditions from the sources identified above, it is found that this plan is sufficient to permit the continuation of mine activities causing

depletions when curtailment would otherwise be required to meet a valid senior call for water.

7. Terms and conditions.

The following terms and conditions will prevent injury to other water rights:

7.1 On a monthly basis, CC&V will submit a report to the Division of Water Resources that contains the following information for the relevant monthly reporting period: (a) the precipitation measured at the Rigi and Grassy Valley weather stations; (b) the size and location of all Lined Areas; (c) the size and location of all Fourmile Sediment Detention Ponds; (d) the type, size and location of all Beaver Creek Mine Features; (e) Grassy Valley stream flow measured at a location downstream of all Beaver Creek Mine Features; (f) the amount of water collected in the Pump-Back System and pumped back to Cresson Project facilities; (g) the depletion and replacement calculations for the Lined Areas as set out in Section 5.2 of this Plan; (h) the depletion and replacement calculations for the Fourmile Sediment Detention Ponds as set out in Section 5.3 of this Plan; (i) the depletion and replacement calculations for the Beaver Creek Mine Features as set out in Section 5.4 of this Plan; (j) the depletion and replacement calculations for the Pump-Back System as set out in Section 5.5 of this Plan; and (k) the delivery calculations for the Bull Hill augmentation station as set out in Section 5.6.1.1 of this Plan. CC&V will also provide the monthly reports by e-mail or other electronic delivery method to any Opposer who asks to receive them.

7.2 On a yearly basis, CC&V will submit a report to the Division of Water Resources that describes (1) any changes in its plans for Lined Areas, Fourmile Sediment Detention Ponds, Beaver Creek Mine Features, and Pump-Back Systems for each of the three years following the date of the report, and (2) the previous year's precipitation data, stream flow data, and calculation of basin yield for Grassy Valley. CC&V will also provide the annual reports to any Opposer who asks to receive them.

7.3 All out-of-priority depletions will be replaced in accordance with this Plan. All replacements will be made at the augmentation stations described in

Section 5.6 above. All of the replacement water sources used in this Plan must be decreed for the uses to be made by CC&V. All deliveries of replacement water to augmentation stations will be metered.

7.4 CC&V is prohibited from diverting for subsequent use any water from any sediment detention pond.

7.5 Interface with CWCB ISF Water Right.

7.5.1 The Colorado Water Conservation Board holds the following water rights that may be impacted by operations of the CC&V Mine:

CWCB Case No.	Stream/Lake	Amount (cfs) and time of year	Appropriation Date	Upper Terminus	Lower Terminus
2-00CW103	Fourmile Creek	4.5 10/15-4/14 9.4 4/15-10/14	1/26/2000	Conf w/ Cripple Creek	Conf w/ Trail Gulch
2-00CW104	Fourmile Creek	4.75 10/15-4/14 9.1 4/15-10/14	1/26/2000	Conf w/ Trail Gulch	Conf w/ Felch Creek
2-00CW105	Fourmile Creek	5.0 10/15-4/14 9.5 4/15-10/14	1/26/2000	Conf w/ Felch Creek	Hdgt Canon Heights Diversion
2-00CW106	Fourmile Creek	3.5 4/1-5/14 9.5 5/15-6/14 3.5 6/15-10/31 5.0 11/1-3/31	1/26/2000	Hdgt Canon Heights Diversion	Conf w/ Wilson Creek

CC&V's use of exchanges described in Case No. 98CW115 shall be subject to the terms and conditions in that case, including but not limited to the conditions in Paragraph 9.5 of the 98CW115 decree.

Lined Areas, Fourmile Sediment Ponds, and Pump-Back System facilities located inside the Fourmile Creek Diatreme Area cause depletions to Fourmile Creek at the location where flows from the Carlton Tunnel enter Fourmile Creek. This location is within the reach of the CWCB's ISF water right decreed in Case No. 00CW103. Lined Areas, Fourmile

Sediment Ponds, and Pump-Back System facilities located Outside the Diatreme Area in Fourmile Creek Basin also cause depletions within the same ISF reach, approximately 0.5 miles upstream of the location where flows from the Carlton Tunnel enter Fourmile Creek. CC&V must separately track the depletions from facilities located Outside the Diatreme Areas in Fourmile Creek and depletions from facilities located inside the Fourmile Creek Diatreme Area to ensure replacements are made at the proper location. Replacements made at the Bull Hill Augmentation Station or to Fourmile Creek upstream of the Carlton Tunnel will properly replace depletions to the ISF from within the Diatreme Area. Replacements made at the Arequa Gulch augmentation station or to Fourmile Creek upstream of the confluence with Cripple Creek will properly replace depletions to the ISF caused by CC&V's operations outside of the Diatreme Area but within the Arequa Gulch basin.

7.5.2 Pursuant to C.R.S. § 37-92-102(3)(b), ongoing depletions to Fourmile Creek from precipitation that falls on Lined Areas located within and outside the Diatreme Area that pre-date the ISF Right do not have to be replaced to protect the instream flow water rights described above. CC&V has established that the Lined Areas that pre-existed the CWCB's ISF water rights and caused depletions within the Fourmile Creek Diatreme Area measured 97.28 acres. An additional 164.96 acres of Lined Areas that pre-existed the CWCB's ISF water rights were located in the Arequa Gulch basin Outside the Diatreme Area in Fourmile Creek Basin. The depletions from these pre-existing 164.96 acres historically occurred upstream of the location where the Carlton Tunnel flows into Fourmile Creek. Notwithstanding that the specific Lined Areas have changed and will continue to change over time, the amount of depletion that is subject to C.R.S. § 37-92-102(3)(b) protection shall be 30% of the measured precipitation that falls upon 164.96 acres of Lined Areas located Outside the Diatreme Area in Fourmile Creek Basin and 97.28 acres located within the Fourmile Creek Diatreme Area.

7.5.3 The subordination of the decreed instream flow water right to the Applicant's depletions that pre-existed the ISF Right pursuant to section

37-92-102(3)(b) shall not interfere with the administration of CC&V's augmentation plan and shall not result in general subordination of the CWCB's decreed ISF water rights to any other water rights junior to such ISF water right.

7.6 The exchanges described in Section 3.3 of this Decree are junior in priority to the exchanges decreed in Cases Nos. 84CW202, 84CW203, and 86CW116 ("CS-U Exchanges"), and shall be so operated and administered to the extent the CS-U Exchanges are administered according to their decreed appropriation dates.

Conclusions of Law

8. Based upon and fully incorporating the Findings of Fact set forth above, this Court concludes as a matter of law that:

8.1 Personal and Subject Matter Jurisdiction. This Application was filed with the Water Clerk, Water Division 2, pursuant to C.R.S. § 37-92-302(1)(a). Timely and adequate notice of the pendency of this proceeding *in rem* has been given in the manner required by law. The time for filing statements of opposition and for seeking leave to intervene has expired. This Court has subject matter jurisdiction over the application and this proceeding, and personal jurisdiction over all persons who would have standing to appear as parties, regardless of whether they have appeared.

8.2 Application is Lawful. This Decree approving CC&V's Plan is contemplated and authorized by law.

8.3 The Cresson Project is a mining operation as defined in C.R.S. § 34-32-103(8), for which a reclamation permit has been obtained as set forth in C.R.S. § 34-32-109. In determining the quantity of water required as a substitute supply to replace stream depletions connected with the Cresson Project, there is no requirement to replace the amount of historical natural depletions to the waters of the State, if any, caused by the preexisting natural vegetative cover and evaporation on the surface of the area that will be, or has been, eliminated or made impermeable as part of the permitted mining operation. C.R.S. § 37-92-305(12)(c).

8.4 Administration. The State Engineer shall administer this Plan in accordance with the terms and conditions set forth herein.

Decree

9. Based upon the foregoing Findings of Fact and Conclusions of Law, it is hereby DECREED BY THE COURT:

9.1 Fully Incorporated Decree. The foregoing Findings of Fact and Conclusions of Law are hereby fully incorporated into this Decree.

9.2 Fully Incorporated Stipulations. The Stipulations between CC&V and the Opposers in this matter are enforceable by the Court as between the stipulating parties.

9.3 Application for Approval of Plan for Augmentation Granted. The Plan set forth herein is approved. Consideration has been given to the depletions from CC&V's use and proposed uses of water, in quantity and in time, the amount and timing of replacement water that will be provided by CC&V, and the existence, if any, of injury to any owner of or person entitled to use water under a vested water right or a decreed conditional water right. It is determined that the timing, quantity, and location of replacement water and the protective terms outlined herein are sufficient so that the Plan will not injuriously affect the owner of or persons entitled to use water under a vested water right or a decreed conditional water right. As a result of the operation of the Plan, the diversions and net depletions from CC&V's mining operations will not result in injury to any owner of or person entitled to use water under a vested water right or a decreed conditional water right. The substituted water provided under this Plan is of a quality and quantity so as to meet the requirements for which the water of senior appropriators has normally been used, and such substituted water shall be accepted by the senior appropriators in substitution for water derived by the exercise of CC&V's decreed rights. *See* C.R.S. § 37-92-305(5).

9.4 Historical Evaporation and Evapotranspiration. CC&V has met its burden of proving the historical natural depletion to the waters of the State caused by the preexisting natural vegetative cover and evaporation on the surface area that will

be eliminated or made impermeable by the activities and facilities described in this Decree. In this Plan, CC&V is not required to replace these historical natural depletions.

9.5 Decree Administrable. Upon entry by the Water Court, this Decree will be administrable by the Division Engineer for Water Division 2 and can be operated without adversely affecting the owners or users of vested water rights or decreed conditional water rights. Pursuant to C.R.S. § 37-92-305(8), the State Engineer shall curtail all out-of-priority diversions which are not so replaced as to prevent injury to vested water rights.

9.6 Measuring Devices and Accounting. CC&V shall install and maintain such measuring devices as the State Engineer or his agents may reasonably require for the administration of this Plan. In addition, CC&V will keep records of the calculated stream depletions and the associated replacement deliveries on forms similar to those used in the past and in a format acceptable to the Division Engineer. CC&V will record all accounting information on a daily basis and provide it to the Division Engineer on a monthly basis. A sample accounting form is attached for reference as **Figure 4**, but is not decreed herein.

9.7 Retained Jurisdiction.

9.7.1 The Court shall retain jurisdiction perpetually for the purpose of reviewing the use of additional water rights under Section 3.6 of this Plan.

9.7.2 In addition, and pursuant to the provisions of C.R.S. § 37-92-304(6), the Plan decreed herein shall be subject to the reconsideration of this Court for the purpose of evaluating injury to the vested rights of others for a period of 10 years from the date of this Decree, or until the date on which the Colorado Division of Reclamation, Mining and Safety releases all performance and financial warranties to CC&V relating to Cresson Project operations in accordance with C.R.S. § 34-32-117, whichever is sooner. CC&V will provide written notice to all Opposers if CC&V files a written notice of completion with DRMS pursuant to C.R.S. § 34-32-117(5.5) earlier than 10 years from the date of this Decree.

9.7.3 The Court will retain jurisdiction for a period of five years after CC&V constructs the first sediment control ponds or other stormwater control structures in Lower Grassy Valley, for the limited purpose of reviewing the amount of depletions and evaluating injury to the vested rights of others associated with these structures in Lower Grassy Valley.

9.7.4 Any person may petition the Court to invoke its retained jurisdiction within the applicable periods set forth above. Any person seeking to invoke the Court's retained jurisdiction shall file a verified petition with the Court setting forth 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 the substance of the relief sought. The party filing the petition shall have the burden of going forward to establish a *prima facie* case based on the facts alleged in the petition. If the Court finds those facts to be established, CC&V shall then have the burden of proof to show: (a) that any modification sought by CC&V will avoid injury to the vested rights of others, or (b) that any modification sought by the petitioner is not required to avoid injury to the vested rights of others, or (c) that any term or condition proposed by CC&V in response to the petition does avoid injury to the vested rights of others. If no such petition is filed within the applicable 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.

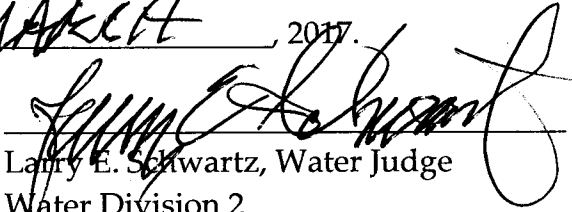
9.7.5 The Court will retain jurisdiction for a period of five years from the date of this Decree for the purpose of evaluating and revising the relationship between precipitation in Grassy Valley and runoff to Beaver Creek described in Sections 5.2.3.3 and 5.4.1.1. CC&V or any Opposer on Beaver Creek may invoke the Court's retained jurisdiction for this purpose. The party seeking to revise the relationship between precipitation and runoff will confer with all other parties about the proposed revision. Unless the proposed revision is agreed to by all other parties, the party invoking retained jurisdiction shall file a petition with the Court and serve the petition on all other parties describing the

proposed revision to the relationship between precipitation and runoff, and the technical basis for the proposed revision. Any party wishing to object to the proposed revision shall file a written Objection with the court and serve the Objection upon all other parties within 63 days after service of the petition. If an Objection is filed, the Court will schedule a hearing to determine whether the proposed revision can be implemented without injury to other water rights. At the hearing, the party invoking the Court's retained jurisdiction will have the burden of proof.

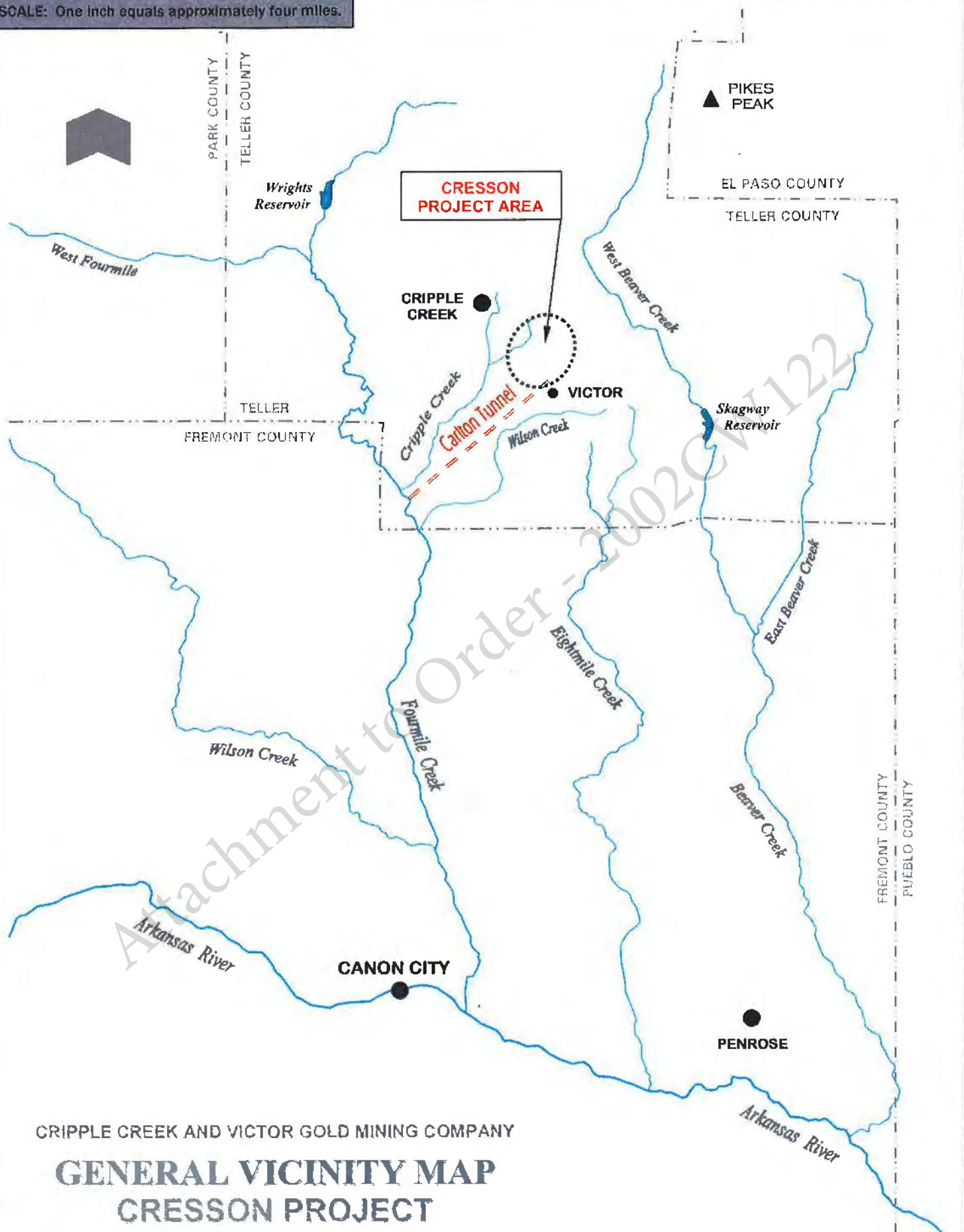
9.8 No Precedent. There was no trial in this matter and no issues were litigated. This decree was completed as the result of substantial discussions, negotiations, and compromises by, between, and among CC&V and the opposers pertaining to all parts of the decree. It is specifically understood and agreed by the parties hereto, and found and concluded by the Court, that the acquiescence of the parties to a stipulated decree under the specific factual and legal circumstances of this contested matter and upon the numerous and interrelated compromises reached by the parties shall never give rise to any argument, claim, defense or theory of acquiescence, waiver, bar, merger, stare decisis, res judicata, estoppel, laches, or otherwise, nor to any administrative or judicial practice or precedent, by or against any of the parties hereto in any other matter, case or dispute, nor shall testimony concerning such acquiescence of any party to a stipulated decree herein be allowed in any other matter, case or dispute. All parties stipulate and agree that they do not intend the decree to have the effect of precedent or preclusion on any factual or legal issue in any other matter.

9.9 Filing of Copies. A copy of this Decree shall be filed with the Water Clerk for Water Division 2, and the Decree shall be subject to judicial review as provided by C.R.S. § 37-92-304. Copies shall also be filed with the State Engineer and the Division Engineer for Water Division 2.

ENTERED THIS 27 day of MARCH, 2017.


Larry E. Schwartz, Water Judge
Water Division 2

SCALE: One inch equals approximately four miles.



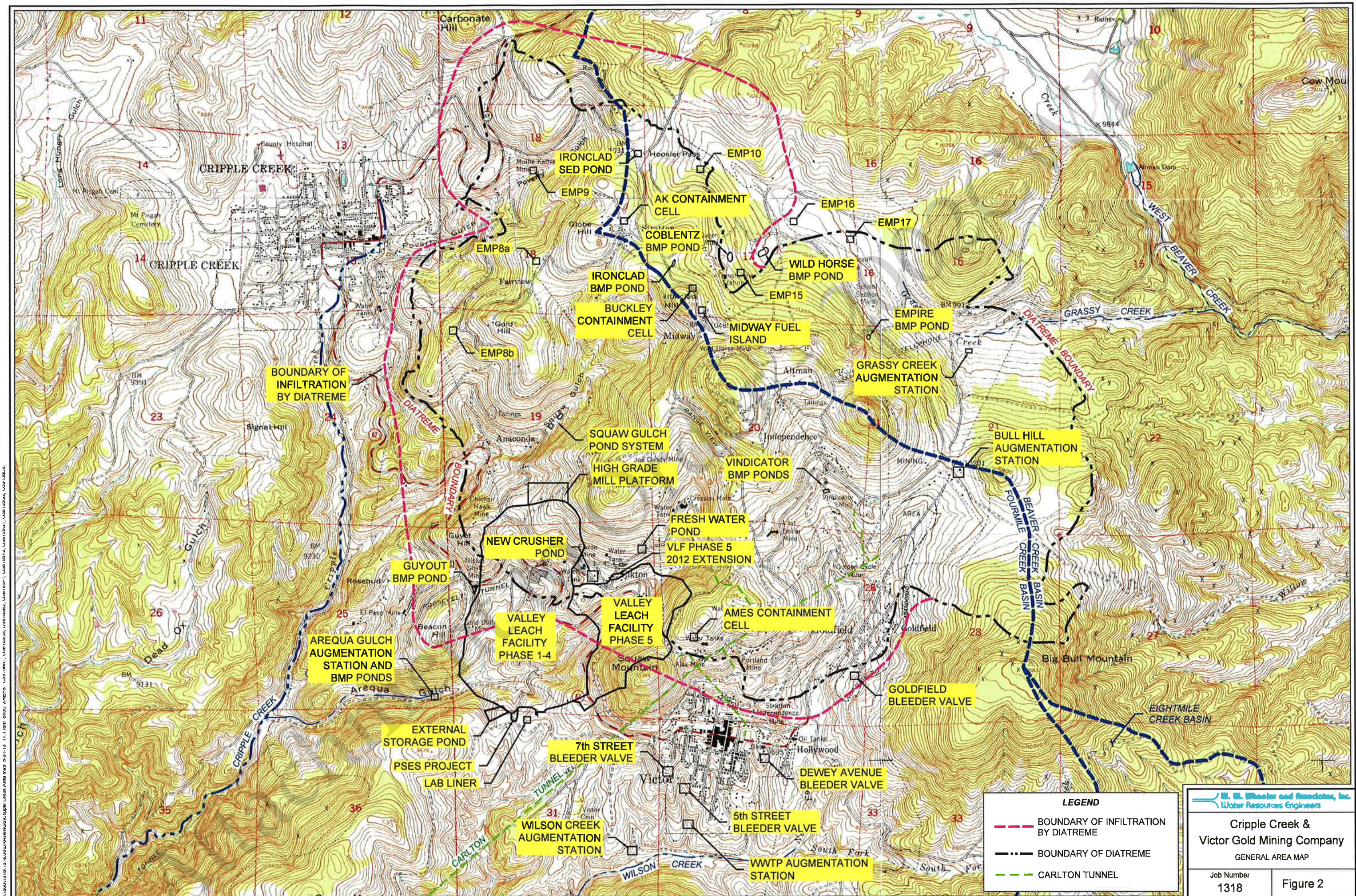
CRIPPLE CREEK AND VICTOR GOLD MINING COMPANY

GENERAL VICINITY MAP CRESSON PROJECT

November 2010

Job No. 1318.00

FIGURE 1



LEGEND

- BOUNDARY OF INFILTRATION BY DIATREME
- BOUNDARY OF DIATREME
- CARLTON TUNNEL

W. B. Wheeler and Associates, Inc.
Water Resources Engineers

Cripple Creek & Victor Gold Mining Company
GENERAL AREA MAP

Job Number 1318	Figure 2
--------------------	----------

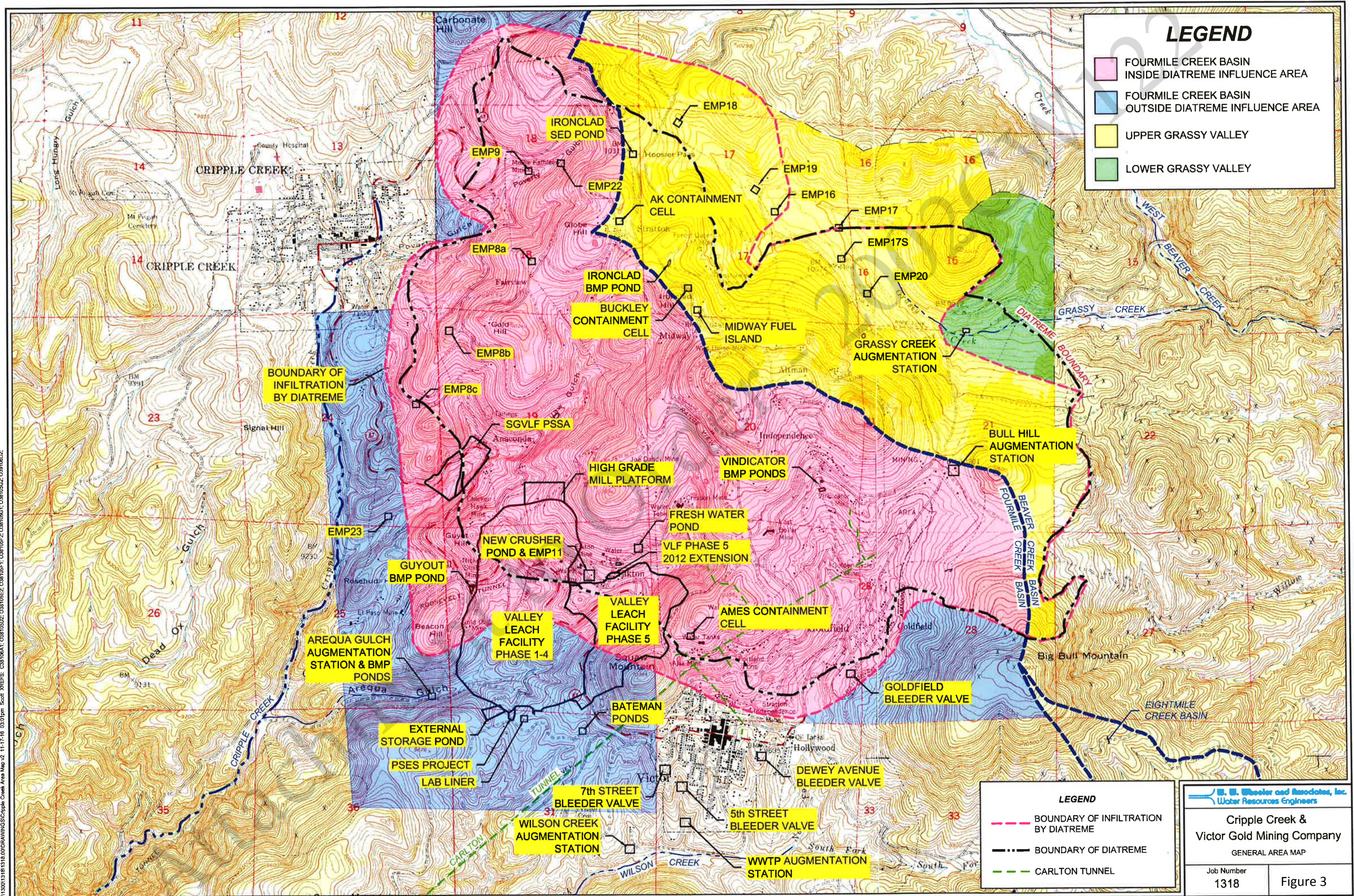


Figure 4

**SAMPLE WATER RIGHTS ACCOUNTING
CRIPPLE CREEK & VICTOR GOLD MINING COMPANY**

**CASE NOS. 02CW122 and 10CW31
ALSO INCLUDING EXCHANGES IN CASE NO. 98CW115**

**In the Fourmile Creek and Beaver Creek drainage basins, tributary to the Arkansas
River**

**Note: Most of the data contained in this sample water rights accounting is "example
data" for illustrative purposes only. It is not actual data based on actual
measurements.**

Attachment to Order - 2002CW122

Year 2017

CC&V Water Rights Accounting - Augmentation Plan Summary
Case Nos. 02CW112 and 10CW31

Values in Acre-Feet

[illegible]

Year 2017

CC&V WATER RIGHTS ACCOUNTING - Depletions Summary
Case Nos. 02CW112 and 10CW31

Values in Acre-Feet

		Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Totals
1	Depletion from Lined Areas inside the Diatreme in the Historic Fourmile Basin - For the first 97.28 acres	5.42	5.39											
2	Depletion from Lined Areas inside the Diatreme in the Historic Fourmile Basin - For areas in excess of 97.28 acres	23.63	23.53											
3	Depletion to Fourmile Cr for Lined Areas inside the Diatreme in the Upper Grassy Valley Basin	0.06	0.06											
4	Depletion for Lined Areas outside the Diatreme - For the first 164.96 acres	4.85	3.29											
5	Depletion for Lined Areas outside the Diatreme - For areas in excess of 164.96 acres	1.66	1.13											
6	Sediment Pond Evaporation - in Historic Fourmile Basin	0.29	0.00											
7	Depletion for Beaver Creek Mine Features (see "Depletions for Beaver Cr Features" sheet)	0.00	0.00											
8	Sediment Detention Ponds in Lower Grassy Valley	0.00	0.00											
9	Amount Pumped by Arequa Gulch Pumpback System	2.00	2.00											
10	Total Depletions (Lines 1 thru 9)	37.91	35.40											
Depletions Senior to ISFs	Depletion to Fourmile Creek - senior to Instream Flow Water Rights + Lined areas inside the diatreme (Lines 1 through 4)	33.96	32.27											
Depletions Junior to ISFs	Additional Depletion to Fourmile Cr that must be Replaced at Arequa Gulch or Wrights Reservoir if Instream Flow Right on Fourmile Cr Gage near Cripple Cr is not Satisfied and Calling (Lines 5 + 6 + 9)	3.95	3.13											
Beaver Cr	Depletion to Beaver Cr (Lines 7 + 8)	0.00	0.00											
	Check - Total Depletions (Categories 1 - 4)	37.91	35.40											

Notes:

1. 97.28 acres inside the diatreme and 164.96 acres outside of the diatreme were in existence prior to the Fourmile Creek instream flow water rights. Therefore, such depletions are not subject to the instream flow water rights.
2. Depletions for all other lined areas inside the diatreme, including areas inside the diatreme in the historic Grassy Valley area, may be replaced by releases at Bull Hill and are not subject to instream flow water rights.
2. Fourmile Creek instream flow water rights are subordinated to CC&V's exchanges on Fourmile Creek in Case No. 98CW115 during April 15 through October 15. The direct flow exchange extends to a point located a short distance upstream of the point where the Carlton Tunnel delivers water to Fourmile Creek, but it does not extend the remaining distance upstream to the confluence with Cripple Creek.
3. For replacement requirements associated with activities outside of the diatreme in excess of the 164.96 acres, depletions must be replaced at Arequa Gulch or Wrights Reservoir if the CWCB instream flow water right on Fourmile Creek downstream of Cripple Creek is calling and not satisfied.
4. Replacement of depletions is required during the following month. For example, replacement is required in December for depletions that occurred in November.

Year 2017

CC&V Water rights Accounting - Replacement Deliveries

Case Nos. 02CW112 and 10CW31

Values in Acre-Feet

		Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Totals
Replacement Provided to Fourmile Creek Basin	1 Altman Water Rights from City of Victor - Water Delivered to Fourmile Creek (after lag for Bull Hill deliveries)	28.00	32.40											
	2 From Colorado Springs Utilities - Water Delivered to Fourmile Creek (after Lag)	7.00	6.77											
	3 Water from Pueblo Board of Water Works Released from Wrights Reservoir for Replacement	15.00	15.00											
	3A Line 3, Reduced for Transit Loss to the Confluence with Cripple Creek	13.80	13.80											
	4 Water from Pueblo Board of Water Works Exchanged on Fourmile Creek for Replacement	0.00	0.00											
	5 Water from Upper Ark Water Cons District Used for Replacement	0.00	0.00											
	6 Total Replacement Water Delivered to Fourmile Cr (Lines 1, 2, 3A, 4 & 5)	48.80	52.97											
Replacement Provided to Beaver Creek	7 Altman Water Rights from City of Victor - Water Delivered to Grassy Cr or Beaver Cr	1.40	1.40											
	8 From Colorado Springs Utilities - Water Delivered to Grassy Cr or Beaver Cr	0.00	0.00											
	9 Total Replacement Water Delivered to Grassy Cr and Beaver Cr (Lines 7 & 8)	1.40	1.40											

Notes:

1. Replacement of depletions is required during the following month. For example, replacement is required in December for depletions that occurred in November.
2. Use of Altman water rights for replacement purposes is limited to 614 ac-ft per year.

(All values in Acre-Feet unless noted)

		Replacement from Bull Hill Delivered to Fourmile Cr- After Considering Lag (Replacement water is lagged over three months - see the "Replacement Water to Bull Hill" sheet)				Replacement at Arequa Gulch		Replacement at Wrights Reservoir		Replacement by Exchange from Arkansas River (Only Allowed if the Water Comm has Approved an Exchange on Fourmile Cr per Case 98CW115)			Replacement to Beaver Creek					Total Replacement to Beaver Creek and Grassy Valley (sum of Lines 14 thru 17)
DATE	Is there a Call by CWCB ISF on Fourmile Cr at the Gage near Cripple Cr? (Yes, No)	Using Altman Rights for Lined Areas inside the Dlatrema & Depletions Senior to ISFs	Using Altman Rights for Other Types of Depletions (Only if Col 1 is "No")	Using Colo Springs Rights for Lined Areas inside the Dlatrema & Depletions Senior to ISFs	Using Colo Springs Rights for Other Types of Depletions (Only if Col 1 is "No")	Using Altman Rights	Using Colo Springs Rights	Using PBWW Water	Using Upper Ark Water	Has the Water Comm Approved an Exchange on Fourmile Cr per Case 98CW115?	Using PBWW Water	Using Upper Ark Water	Total Replacement to Fourmile Creek (sum of Lines 2 thru 12)	Using Altman Rights Released at Grassy Valley	Using Colo Springs Rights Released at Grassy Valley	Using Altman Rights Released at Altman Pump Station	Using Colo Springs Rights Released at Altman Pump Station	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
NOV	1	Yes	0.50	0.23	0.40	0.40		0.60		No			1.73					0.00
	2	Yes	0.50	0.23	0.40			0.60					1.73					0.00
	3	Yes	0.50	0.23	0.40			0.60					1.73					0.00
	4	Yes	0.50	0.23	0.40			0.60					1.73					0.00
	5	Yes	0.50	0.23	0.40			0.60					1.73					0.00
	6	Yes	0.50	0.23	0.40			0.60					1.73	0.20				0.20
	7	Yes	0.50	0.23	0.40			0.60					1.73	0.20				0.20
	8	Yes	0.50	0.23	0.40			0.60					1.73	0.20				0.20
	9	Yes	0.50	0.23	0.40			0.60					1.73	0.20				0.20
	10	Yes	0.50	0.23	0.40			0.60					1.73	0.20				0.20
	11	Yes	0.50	0.23	0.40			0.60					1.73	0.20				0.20
	12	Yes	0.50	0.23	0.40			0.60					1.73	0.20				0.20
	13	Yes	0.50	0.23	0.40			0.60					1.73					0.00
	14	Yes	0.50	0.23	0.40			0.60					1.73					0.00
	15	Yes	0.50	0.23	0.40			0.60					1.73					0.00
	16	Yes	0.52	0.23	0.40			0.60					1.75					0.00
	17	Yes	0.57	0.23	0.40			0.60					1.80					0.00
	18	Yes	0.57	0.23	0.40			0.60					1.80					0.00
	19	Yes	0.57	0.23	0.40			0.60					1.80					0.00
	20	Yes	0.57	0.23	0.40			0.60					1.80					0.00
	21	Yes	0.57	0.24	0.40			0.60					1.81					0.00
	22	Yes	0.57	0.24	0.40			0.60					1.81					0.00
	23	Yes	0.57	0.24	0.40			0.60					1.81					0.00
	24	Yes	0.57	0.24	0.40			0.60					1.81					0.00
	25	Yes	0.57	0.24	0.40			0.60					1.81					0.00
	26	Yes	0.57	0.24	0.40			0.60					1.81					0.00
	27	Yes	0.57	0.24	0.40			0.60					1.81					0.00
	28	Yes	0.57	0.24	0.40			0.60					1.81					0.00
	29	Yes	0.57	0.24	0.40			0.60					1.81					0.00
	30	Yes	0.57	0.24	0.40			0.60					1.81					0.00
Month total		16.00	0.00	7.00	0.00	12.00	0.00	18.00	0.00	-	0.00	0.00	53.00	1.40	0.00	0.00	0.00	1.40
DEC	1	Yes	0.50	0.22	0.40	0.40		0.60		No			1.72					0.00
	2	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	3	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	4	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	5	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	6	Yes	0.65	0.22	0.40			0.60					1.87	0.20				0.20
	7	Yes	0.65	0.22	0.40			0.60					1.87	0.20				0.20
	8	Yes	0.65	0.22	0.40			0.60					1.87	0.20				0.20
	9	Yes	0.65	0.22	0.40			0.60					1.87	0.20				0.20
	10	Yes	0.65	0.22	0.40			0.60					1.87	0.20				0.20
	11	Yes	0.65	0.22	0.40			0.60					1.87	0.20				0.20
	12	Yes	0.65	0.22	0.40			0.60					1.87	0.20				0.20
	13	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	14	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	15	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	16	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	17	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	18	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	19	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	20	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	21	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	22	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	23	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	24	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	25	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	26	Yes	0.65	0.22	0.40			0.60					1.87					0.00
	27	Yes	0.65	0.21	0.40			0.60					1.86					0.00
	28	Yes	0.65	0.21	0.40			0.60					1.86					0.00
	29	Yes	0.65	0.21	0.40			0.60					1.86					0.00
	30	Yes	0.65	0.21	0.40			0.60					1.86					0.00
	31	Yes	0.65	0.21	0.40			0.60					1.86					0.00
Month total		20.00	0.00	6.77	0.00	12.40	0.00	18.60	0.00	-	0.00	0.00	57.77	1.40	0.00	0.00	0.00	1.40
JAN	1																	
	2																	
	3																	
	4																	
	5																	
	6																	
	7																	
	8																	

Calculation of Depletions to Fourmile Creek Associated with Lined Areas

(All values in Acre-Feet unless noted.)

	Rigi Station 12-Month Precip Total (inches)	Lined Areas Inside the Diatreme in Historic Fourmile Basin				Lined Areas Inside the Diatreme in Upper Grassy Valley		Lined Areas Outside the Diatreme in Historic Fourmile Basin					Total Depletion to Fourmile Creek from all Lined Areas (ac-ft)
		Lined Areas Inside the Diatreme (acres)	Lined Areas in Excess of 97.28 acres	Depletion for First 97.28 ac (97.28 ÷ 144 x Col 2 x 30%)	Depletion for Areas in Excess of 97.28 ac (Col 4 ÷ 144 x Col 2 x 30%)	Lined Areas in Upper Grassy Valley (acres)	Depletion (Col 7 ÷ 144 Col 2 x 28.6%)	Lined Areas Outside the Diatreme (acres)	Lined Areas in Excess of 164.96 acres	Monthly Depletion as Percentage of Annual Total per Decree	Depletion for First 164.96 ac (164.96 x Col 2 ÷ 12 x 30% x Col 11)	Depletion for Areas in Excess of 164.96 ac (Col 10 x Col 2 ÷ 12 x 30% x Col 11)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Nov	26.73	521.67	424.39	5.42	23.63	1.08	0.06	221.51	56.55	4.4	4.85	1.66	35.62
Dec	26.61	521.67	424.39	5.39	23.53	1.08	0.06	221.51	56.55	3.0	3.29	1.13	33.40
Jan	26.10	521.67	424.39	5.29	23.08	1.08	0.06	221.51	56.55	2.9	3.12	1.07	32.61
Feb	24.03	521.67	424.39	4.87	21.25	1.08	0.05	221.51	56.55	2.4	2.38	0.82	29.36
Mar	24.46	521.67	424.39	4.96	21.63	1.08	0.05	221.51	56.55	4.0	4.03	1.38	32.05
Apr	25.03	521.67	424.39	5.07	22.13	1.08	0.05	221.51	56.55	8.8	9.08	3.11	39.45
May	20.94	521.67	424.39	4.24	18.51	1.08	0.04	221.51	56.55	21.5	18.57	6.36	47.73
Jun	19.88	521.67	424.39	4.03	17.58	1.08	0.04	221.51	56.55	15.5	12.71	4.36	38.71
Jul	17.42	521.67	424.39	3.53	15.40	1.08	0.04	221.51	56.55	10.7	7.69	2.64	29.29
Aug	18.79	521.67	424.39	3.81	16.61	1.08	0.04	221.51	56.55	13.5	10.46	3.59	34.51
Sep	18.94	521.67	424.39	3.84	16.75	1.08	0.04	221.51	56.55	7.5	5.86	2.01	28.49
Oct	19.59	521.67	424.39	3.97	17.32	1.08	0.04	221.51	56.55	5.8	4.69	1.61	27.62
Totals				54.42	237.41		0.58			100	86.73	29.73	408.87

Notes:

Values in Acre-Feet, except as Noted

[illegible]

on Loss			0.00		0.00		0.00		0.00		0.00		0.00
---------	--	--	------	--	------	--	------	--	------	--	------	--	------

Values in Acre-Feet, except as Noted

[illegible]

Depletion Associated with Beaver Creek Mine Features

(Values in Acre-Feet, except as noted)

	Acreage of Beaver Creek Mine Features (acres)	Grassy Valley Station 12-Month Precip Total (inches)	Depletion to Grassy Creek associated with Beaver Creek Mine Features (Col 1 x Col 2 ÷ 144 x 1.4%)	Aggregated Depletion to Beaver Cr (ac-ft)
	(1)	(2)	(3)	(4)
Nov 2016	945	21.60	1.98	0
Dec	945	21.60	1.98	0
Jan 2017	945	21.60	1.98	0
Feb	945	21.60	1.98	0
Mar	945	21.60	1.98	0
Apr	945	21.60	1.98	11.91
May	945	21.60	1.98	1.98
Jun	945	21.60	1.98	1.98
Jul	945	21.60	1.98	1.98
Aug	945	21.60	1.98	1.98
Sep	945	21.60	1.98	1.98
Oct	945	21.60	1.98	1.98
Totals			23.81	23.81

Notes:

Beaver Creek Mine Features includes the drainage area impacted by surface mines, sediment detention ponds and catchment areas contributing storm water, including overburden storage areas. Depletions are calculated on the basis of the overall acreage and precipitation, and this calculated depletion covers all mining facilities in the affected Upper Grassy Valley area, including sediment detention ponds.

Diversion from Grassy Creek associated with Beaver Creek Mine Features is calculated as the Beaver Creek Mine Features acreage x Grassy Valley precipitation (divided by 12) x 1.4 percent.

Replacement for Nov-April is aggregated into a single release during May. Replacement for each other month is made during the following month.

Replacement Water Delivered to Bull Hill

(Replacement credit for water deliveries to the Bull Hill augmentation station is lagged over three months, as calculated below)

	From Altman Water Rights		From Colorado Springs Water Rights	
	Water Released at Bull Hill Aug Station (ac-ft)	3-Month Distribution of Replacement Credit (ac-ft)	Water Released at Bull Hill Aug Station (ac-ft)	3-Month Distribution of Replacement Credit (ac-ft)
Aug-16	15.00		5.00	
Sept	10.00		8.00	
Oct	20.00	15.00	3.00	5.33
Nov	18.00	16.00	10.00	7.00
Dec	25.00	21.00	7.00	6.67
Jan 2017	22.00	21.67	8.00	8.33
Feb	15.00	20.67	9.00	8.00
Mar	35.00	24.00	12.00	9.67
Apr		16.67		7.00
May		11.67		4.00
Jun		0.00		0.00
Jul		0.00		0.00
Aug		0.00		0.00
Sep		0.00		0.00
Oct		0.00		0.00
Nov		0.00		0.00
Dec		0.00		0.00
Jan 2018		0.00		0.00
Feb		0.00		0.00
Mar		0.00		0.00
Apr		0.00		0.00
May		0.00		0.00
Jun		0.00		0.00
Jul		0.00		0.00
Aug		0.00		0.00

Precipitation Data for Rigi and Grassy Valley Weather Stations & Grassy Valley Gaged Flows

	Rigi Weather Station		Grassy Valley Weather Station		Grassy Valley Stream Gage (monthly total ac-ft)
	Monthly Precip (inches)	12-Month Running Total (inches)	Monthly Precip (inches)	12-Month Running Total (inches)	
Jan 2015	1.05		1.04		
Feb	2.79		2.78		
Mar	1.45		1.44		
Apr	1.88		1.85		
May	6.29		6.25		
Jun	2.78		2.68		
Jul	3.78		3.75		
Aug	3.51		3.48		
Sep	0.76		0.74		
Oct	0.93		0.90		
Nov	0.77	26.73	0.75	26.40	
Dec	0.62	26.61	0.65	26.01	
Jan 2016	0.54	26.10	0.51	23.74	
Feb	0.72	24.03	0.70	23.00	
Mar	1.88	24.46	1.91	23.06	
Apr	2.45	25.03	2.48	19.29	
May	2.20	20.94	2.15	18.76	
Jun	1.72	19.88	1.74	16.75	
Jul	1.32	17.42	1.36	14.63	
Aug	4.88	18.79	4.85	18.74	
Sep	0.91	18.94	0.88	18.72	
Oct	1.58	19.59	1.60	19.57	
Nov	0.18	19.00	0.19	19.11	
Dec	0.80	19.18	0.78	19.38	
Jan 2017	0.68	19.32	0.73	19.41	
Feb	1.58	20.18	1.53	19.03	
Mar					
Apr					
May					
Jun					
Jul					
Aug					
Sep					
Oct					
Nov					
Dec					

Note:

Precipitation data in bold italics are sample (incorrect) figures tha needs to be replaced with actual data.