

High View Estates Minor Subdivision

WATER RESOURCES REPORT

**For
High View Estates
Subdivision**

March 11, 2022

Prepared By:



13511 Northgate Estates Dr., Ste. 250, Colorado Springs, Colorado 80921

Executive Summary:

Water Resources Report – High View Estates Minor Subdivision

Ryan W. Farr of Monson, Cummins, Shohet & Farr, LLC, on behalf of the Applicants, Collin Brones and Paul Smith (“Owners”), provides the following Water Resources/Wastewater Disposal Report in support of the High View Estates Minor Subdivision. The undersigned has been practicing water law almost exclusively, for nearly 10 years, and has substantial experience with Denver Basin groundwater resources, augmentation plans, designated basin replacement plans, subdivision proceedings, and rural water usage, and therefore should be considered a “qualified professional” as concerns water resources, as discussed at Section 8.4.7(B)(1)(c) of the El Paso County Land Development Code. This Report, prepared in conjunction with other professionals, is intended to demonstrate to the El Paso County Planning Commission and the Board of County Commissioners, the sufficiency in terms of quantity and dependability, of the water rights and resources to be utilized in the proposed High View Estates Minor Subdivision (the “Subdivision”), near the Black Forest in El Paso County, Colorado.

The Property consists of approximately 40 acres located at the current street addresses of 6665 Walker Road, Colorado Springs, Colorado 80908 in the NW1/4 of the SE1/4 of Section 18, Township 11 South, Range 65 West of the 6th P.M. Each of the five lots in the Subdivision is to be provided water and sewer/septic services through an on-site individual well and Individual Septic Disposal System (“ISDS”). The proposed minor subdivision has one existing residence on proposed Lot 1 containing 11.5634, while the remaining four lots are currently unimproved land, and range in size from 6.0469 acres in size to 8.1498 acres in size.

It is expected that each of the residential lots in the Subdivision will require an average of 1.0 annual acre-feet of water supply, for a total of 5.0 annual acre-feet, to be provided through three individual wells to the not-nontributary Dawson aquifer, consistent with the March 9, 2022 decree issued in Water Court, Division 1, Case No. 21CW3119. Such water supply demand is consistent with other rural residential homes’ historical demand. The decree in Case No. 21CW3119 provides for a 300-year water supply for all five lots within the Subdivision, with each lot utilizing an ISDS of a non-evaporative nature.

The water resources to be utilized on the residential lots in the Subdivision are typical of rural residential development in areas in El Paso County, Colorado. The decree issued by Water Court, Water Division 1 in Case No. 21CW3119 demonstrates a sufficient quantity and reliability of water to support compliance with El Paso County’s 300-year water supply rules for subdivisions of this nature.

I. INTRODUCTION

The purpose of this report is to provide a preliminary outline of the water resources, associated wastewater requirements, necessary for approval of the High View Estates Subdivision, as proposed.

1.1 New Development Description: The Subdivision consists of approximately 40 acres located at the current addresses of 6665 Walker Road, Colorado Springs, Colorado, 80908. The Property will be subdivided into five lots. **Exhibit A**, attached hereto, is the plan for the Subdivision as proposed and prepared by Terra Nova Engineering, Inc. and Compass Surveying & Mapping, LLC.

II. PROJECTION OF WATER NEEDS

2.1 Analysis of Water Demands: It is expected that the five residential lots in the Subdivision will utilize five individual wells (one well per lot) drilled to the Dawson aquifer for domestic-type uses, including in-house, landscape/garden/lawn irrigation, watering of domestic animals and stock, and fire protection. An existing well with Colorado Division of Water Resources Permit No. 130940 will provide water supply to one of the lots, and will be re-permitted in accordance with the Decree in Case No. 21CW3119. It is anticipated that the residences on the lots will each utilize 0.25 acre-feet annually for in-house residential purposes, for a maximum total of 1.25 annual acre-feet of water for in-house residential purposes, consistent with the decree in Case No. 21WC3119 and the El Paso County Land Development Code Section 8.4.7. The existing well, permitted under Permit No. 130940, is constructed to and will produce from the not-nontributary Dawson aquifer at a flow rate of 15 gallons per minute, based upon past production.

There are no other wells currently constructed on the property. Based on past experience with the numerous Dawson aquifer wells serving rural residential properties throughout El Paso County, this rate of production should be more than sufficient to meet demand for in-house use.

III. PROPOSED WATER RIGHTS AND FACILITIES

3.1 Water Rights: An Augmentation Plan utilizing the underlying Dawson aquifer was approved by Water Court, Water Division 1 on March 9, 2022. A copy of the recorded decree is attached hereto as **Exhibit B**, which includes the following specific quantities of water supplies that will meet both legal and physical needs on a 300-year basis:

AQUIFER	Saturated Thickness (ft)	Total Water Adjudicated (Acre Feet)	Annual Average Withdrawal – 100 Years (Acre Feet)	Annual Average Withdrawal – 300 Years (Acre Feet)
Dawson (NNT)	475	3,800	38.0	12.67
Denver (NT)	485	3,300	33.0	11.0

Arapahoe (NT)	255	1,730	17.3	5.77
Laramie Fox Hills (NT)	200	1,200	12.0	4.0

All depletions are augmented in time, place and amount through septic system return flows during pumping and through dedication of nontributary groundwater in the Denver aquifer for depletions occurring after pumping ceases.

3.2 Source of Supply: Rural residential water supply demand will be met using an existing not-nontributary Dawson aquifer formation well and four additional not-nontributary wells to be constructed to the Dawson aquifer, in accordance with the plan for augmentation decreed in Case No. 21CW3119. Consistent with El Paso County Land Development Code Section 8.4.7(B)(3)(c)(v), a minor subdivision utilizing individual wells need not make a further showing as to source of supply.

3.3 Pumping Rates for Service: The Dawson aquifer in the location of the Subdivision is generally known to produce approximately 10-15 gallons per minute, more than sufficient for single family residential and accessory uses.

IV. WASTEWATER AND WASTEWATER TREATMENT – While soils, geology and geotechnical analysis will be provided by other of Owners' consultants, the Owners provide a summary of ISDS to be utilized herein, as relates to water usage and resulting return flows which support the approved Augmentation Plan.

4.1 Septic/Wastewater Loads: Septic projections are based on similar Denver Basin residential uses on rural residential lots. Average daily wastewater loads are expected to be approximately 200 gallons per day per single-family residence assuming residential in-house use at the 0.25 acre-feet per year rate described in the approved Augmentation Plan. Maximum daily wastewater loads are expected to be roughly 210 gallons per day per single-family residence based on the El Paso County Land Development Code residential demand standard of 0.26 acre-feet per year.

4.2 On-Site Wastewater Treatment Systems: The five residential lots within the Subdivision will be served by individual on-site wastewater treatment systems. The on-site wastewater treatment systems have and will be installed according to El Paso County Guidelines and properly maintained to prevent contamination of surface and subsurface water resources.

Respectfully submitted this 11th day of March, 2022.

MONSON, CUMMINS, SHOHET & FARR, LLC

/s/ Ryan W. Farr
Ryan W. Farr

Exhibits:

A – Plat of the Property

B – Decree

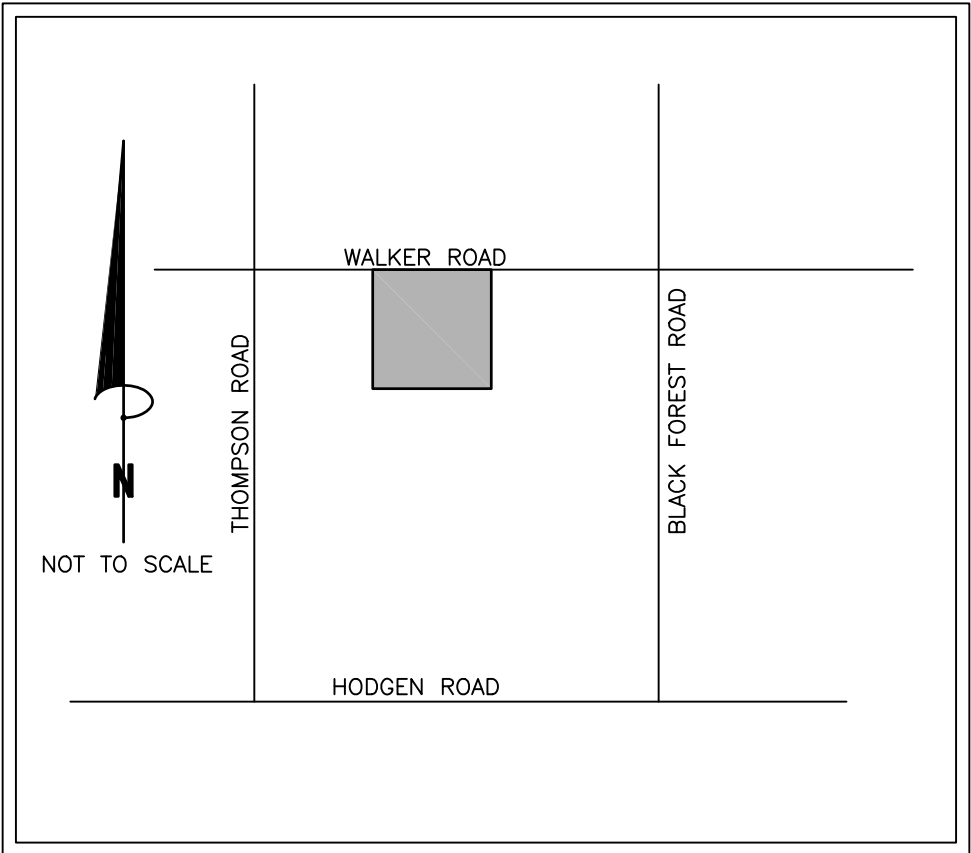
Exhibit A

Water Resource Report

HIGH VIEW ESTATES

A SUBDIVISION OF A PORTION OF THE NORTHWEST QUARTER
OF THE SOUTHEAST QUARTER OF SECTION 19,
TOWNSHIP 11 SOUTH, RANGE 65 WEST OF THE 6TH P.M.,
EL PASO COUNTY, COLORADO

VICINITY MAP



BOARD OF COUNTY COMMISSIONERS CERTIFICATE:

This plat for **HIGH VIEW ESTATES** was approved for filing by the El Paso County, Colorado Board of County Commissioners on the _____ day of _____, 20____, subject to any notes or conditions specified hereon.
The dedications of land to the public (easements) are accepted.

Chair, Board of County Commissioners

PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR:

Planning and Community Development Director

SURVEYOR'S CERTIFICATION:

I, Mark S. Johannes, a duly registered Professional Land Surveyor in the State of Colorado, do hereby certify that this plat truly and correctly represents the results of a survey made on the date of survey shown hereon, by me or under my direct supervision and that all monuments exist as shown hereon; that mathematical closure errors are less than 1:10,000; and that said plat has been prepared in compliance with the applicable laws of the State of Colorado dealing with monuments, subdivision, or surveying of land and the applicable provisions of the El Paso County Land Development Code, to the best of my knowledge, information and belief.

This certification is neither a warranty nor guarantee, either expressed or implied.

I attest the above on this _____ day of _____, 20____.

Mark S. Johannes
Colorado Professional Land Surveyor No. 32439
For and on behalf of Compass Surveying and Mapping, LLC

RECORDING:

STATE OF COLORADO }
COUNTY OF EL PASO } SS

I hereby certify that this instrument was filed for record in my office at _____ o'clock
____M., this_____ day of _____, 20____, A.D., and is duly recorded
under Reception No. _____ of the records of El Paso County,
Colorado.

CHUCK BROERMAN, RECORDER

BY: _____
Deputy

SURCHARGE: _____

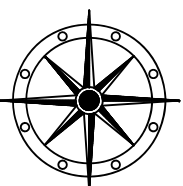
FEЕ: _____

NOTES:

- 1) This survey does not constitute a title search by Compass Surveying & Mapping, LLC to determine ownership or easements of record. For all information regarding easements, rights of way and title of record, Compass Surveying & Mapping, LLC relied upon a Commitment for Title Insurance prepared by _____, File No. _____with an effective date of _____ at 0:00 P.M.
- 2) Basis of bearings is the south line of the property, monumented as shown and assumed to bear South 89 degrees 25 minutes 37 seconds West.
- 3) This property is located within Zone X (areas determined to be outside the 500-year floodplain) as established by FEMA per FIRM panel 08041C0305 G, effective date, December 7, 2018.
- 4) Notice: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.
- 5) The linear units used in this drawing are U.S. Survey feet.
- 6) Mailboxes shall be installed in accordance with all El Paso County Planning and Community Development and United States Postal Service regulations.
- 7) All structural foundations shall be located and designed by a Professional Engineer, currently registered in the State of Colorado.
- 8) All property owners are responsible for maintaining proper storm water drainage in and through their property. Public drainage easements as specifically noted on the plat shall be maintained by the individual lot owners unless otherwise indicated. Structures, fences, materials or landscaping that could impede the flow or runoff shall not be placed in drainage ways.
- 9) The addresses exhibited on this plat are for informational purposes only. They are not the legal description and are subject to change.
- 10) No driveway shall be established unless an access permit has been granted by El Paso County Planning and Community Development.
- 11) Easements are shown hereon. The sole responsibility for maintenance of these easements is hereby vested with the individual property owners.
- 12) Individual wells are the responsibility of each property owner. Permits for individual domestic wells must be obtained from the State Engineer who by law has the authority to set conditions for the issuance of these permits.
- 13) Sewage treatment is the responsibility of each individual property owner. The El Paso County Department of Health and Environment must approve each system and, in some cases, the Department may require an engineer designed system prior to permit approval. These systems may cost more to design, install and maintain.
- 14) Environmental:
Developer shall comply with federal and state laws, regulations, ordinances, review and permit requirements, and other agency requirements, if any, of applicable agencies including, but not limited to, the Colorado Division of Wildlife, Colorado Department of Transportation, U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service regarding the Endangered Species Act, particularly as it relates to the listed species (e.g., Preble's Meadow Jumping Mouse).
- 15) Water in the Denver Basin Aquifers is allocated based on a 100 year aquifer life; however, for El Paso County planning purposes, water in the Denver Basin Aquifers is evaluated based on a 300 year aquifer life, which is based on an allocation approach. Applicants, the Home Owners Association, and all future owners in the subdivision should be aware that the economic life of a water supply is based on wells in a given Denver Basin Aquifer may be less than either the 100 years or 300 years indicated due to anticipated water level declines. Furthermore, the water supply plan should not rely solely upon non-renewable aquifers, and applicants and their successors and assigns, including individual lot owners in the subdivision and the HOA, may be required to acquire, develop, and incorporate alternative renewable water sources in a permanent water supply plan that provides future generation with water supply.
- 16) At the time of approval of this project, this property is located within the Black Forest Fire Protection District, which has adopted a Fire Code requiring residential fire sprinkler requirements for covered structures over 6000 square feet in size, and other fire mitigation requirements depending upon the level of fire risk associated with the property and structures. The owner of any lot should contact the fire district to determine the exact development requirements relative to the adopted Fire Code.
- 17) Due to wildfire concerns, homeowners are encouraged to incorporate wildfire fuel break provisions as recommended by the Colorado State Forest Service and illustrated through publications available through the State Forest Service.
- 18) The subdivider(s) agrees on behalf of him/herself and any developer or builder successors and assignees that subdivider and/or said successors and assigns shall be required to pay traffic impact fees in accordance with the El Paso County road impact fee program resolution (resolution no.19-471), or any amendments thereto, at or prior to the time of building permit submittals. The fee obligation, if not paid at final plat recording, shall be documented on all sales documents and on plat notes to ensure that a title search would find the fee obligation before sale of the property.
- 19) The following reports have been submitted in association with the Preliminary Plan or Final Plat for this subdivision and are on file at the El Paso County Planning and Community Development Department: Water Resources Report; Geology and Soils Report; Fire Protection Report.

PCD FILE No. _____

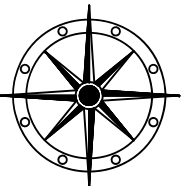
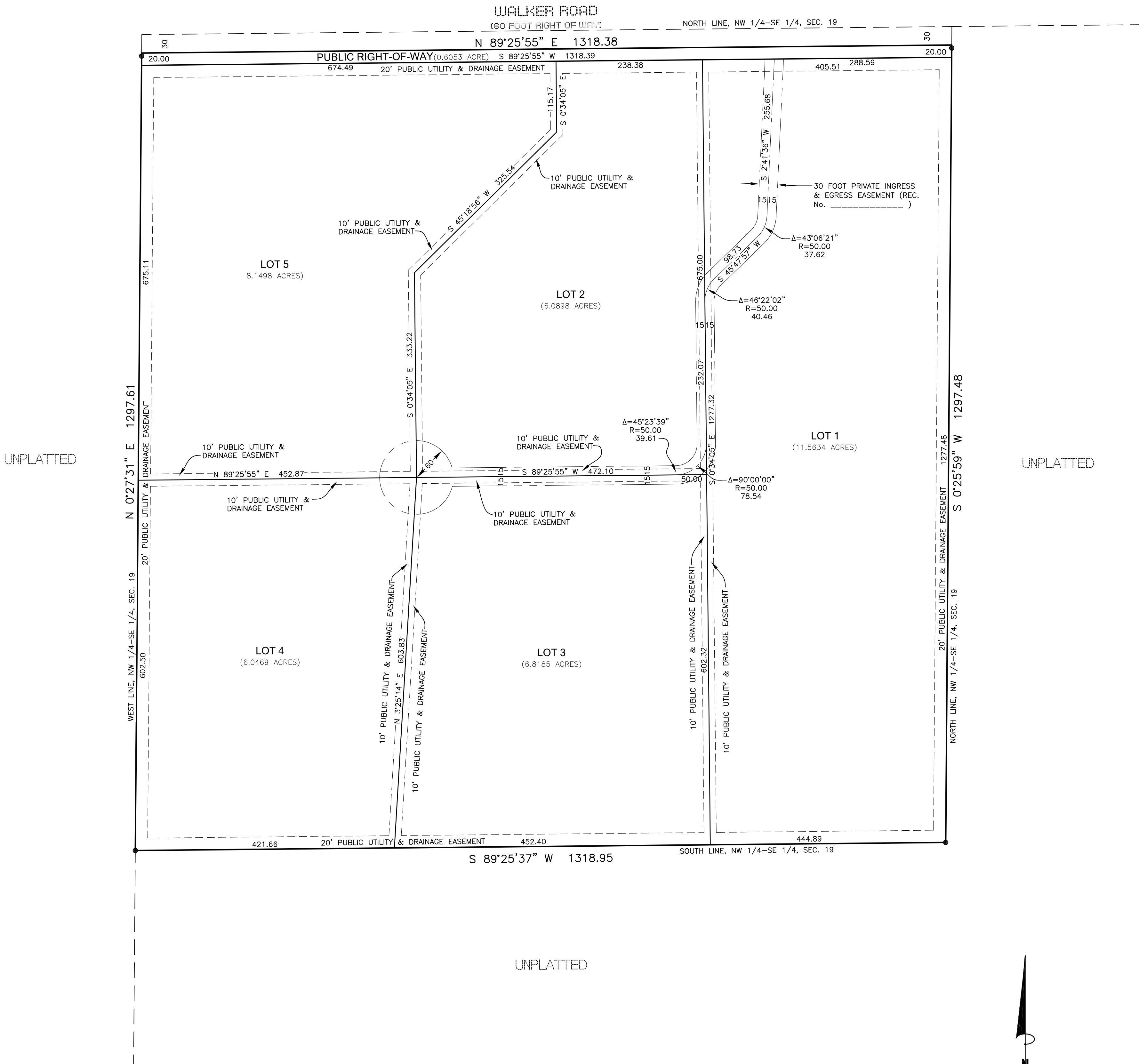
REVISIONS:			PROJECT No. 21118 FEBRUARY 28, 2022 SHEET 1 OF 2



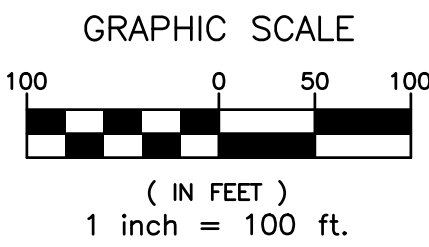
COMPASS SURVEYING & MAPPING, LLC
3249 WEST CAREFREE CIRCLE
COLORADO SPRINGS, CO 80917
719-354-4120
WWW.CSAMLIC.COM

HIGH VIEW ESTATES

A SUBDIVISION OF A PORTION OF THE NORTHWEST QUARTER
OF THE SOUTHEAST QUARTER OF SECTION 19,
TOWNSHIP 11 SOUTH, RANGE 65 WEST OF THE 6TH P.M.,
EL PASO COUNTY, COLORADO



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REVISIONS:	

PCD FILE No. _____

PROJECT No. 21118
FEBRUARY 28, 2022
SHEET 2 OF 2

Exhibit B Water Resource Report

DISTRICT COURT, WATER DIVISION 1, COLORADO Court Address: 901 9 th Avenue P.O. Box 2038 Greeley, CO 80632 Phone Number: (970) 475-2510	DATE FILED: March 9, 2022 3:36 PM CASE NUMBER: 2021CW3119
CONCERNING THE APPLICATION FOR WATER RIGHTS OF: COLLIN BRONES EL PASO COUNTY	▲ COURT USE ONLY ▲ Case No.: 21CW3119
FINDINGS OF FACT, CONCLUSIONS OF LAW, RULING OF REFEREE AND DECREE	

THIS MATTER comes before the Water Court on the Application filed by Collin Brones. Having reviewed said Application and other pleadings on file, and being fully advised on this matter, the Water Court makes the following findings and orders:

GENERAL FINDINGS OF FACT

1. The applicant in this case is Collin Brones, whose address is 6665 Walker Road, Colorado Springs, Colorado 80908 ("Applicant"). The Applicant is the owner of land totaling approximately 40 acres on which the structures sought to be augmented herein are located, and under which lies the Denver Basin groundwater described in this decree, and is the owner of the place of use where the water will be put to beneficial use.
2. The Applicant filed the Application with the Water Courts for both Water Division 1 and Water Division 2 on July 29, 2021. Both Applications were referred to the Water Referee in each Division.
3. The time for filing statements of opposition to the Application expired on the last day of September 2021. No statements of opposition were filed.
4. A Motion for Consolidation of the Division 1 and Division 2 cases into Water Division 2 was filed with the Colorado Supreme Court on October 4, 2021. The Panel on Consolidated Multidistrict Litigation certified the Motion for Consolidation to the Chief Justice on October 28, 2021. Chief Justice, Nathan B. Coats, granted the Motion for Consolidation by Order dated November 29, 2021.
5. On August 2, 2021, the Division 2 Water Court, on Motion from Applicant, ordered that consolidated publication be made by only Division 1.

6. The Clerk of this Court has caused publication of the Application filed in this matter as provided by statute and the publication costs have been paid. On August 16, 2021, proof of publication in *The Transcript* was filed with the Division 1 Water Court. All notices of the Application have been given in the manner required by law.

7. Pursuant to C.R.S. § 37-92-302(2), the Office of the State Engineer has filed Determination of Facts for each Denver Basin aquifer with this Court on October 11, 2021, which have been considered by the Court in the entry of this decree.

8. Pursuant to C.R.S. § 37-92-302(4), the office of the Division Engineer for Water Division No. 1 filed its Consultation Report dated October 11, 2021. A response to the Consultation Report was requested. A Response to the Consultation Report was filed by the Applicant on January 19, 2022. The Consultation Report and Response to the Consultation Report have been considered by the Water Court in the entry of this decree.

9. In accordance with the notice requirements of C.R.S. § 37-92-302(2), a Proof of Notice to Lienholder sent to Community Bank of Colorado was filed with the Court on August 11, 2021.

10. The Water Court has jurisdiction over the subject matter of these proceedings and over all who have standing to appear as parties whether they have appeared or not. The land and water rights involved in this case are not within a designated groundwater basin.

GROUNDWATER RIGHTS

11. The Applicant requested quantification and adjudication of underground water rights for the Brones Well, as is constructed to the Dawson aquifer, and additional or replacement wells associated therewith, for withdrawal of Applicant's full entitlements of supply under the plan for augmentation decreed herein for the provision of water to a five-lot subdivision. Applicant also requested quantification and adjudication of water uses from the Denver, Arapahoe, and Laramie-Fox Hills aquifers. The following findings are made with respect to such underground water rights:

12. The land overlying the groundwater subject to the adjudication in this case is owned by the Applicant and consists of approximately 40 acres described as the NW1/4 of the SE1/4 of Section 18, Township 11 South, Range 65 West of the 6th P.M., El Paso County, Colorado, better known as 6665 Walker Road, Colorado Springs, Colorado 80908, as shown on the attached **Exhibit A** map ("Applicant's Property"). All groundwater adjudicated herein shall be withdrawn from the overlying land.

13. There is an existing domestic well on the Applicant's Property with Division

of Water Resource Permit No. 130940 ("Brones Well"). It is drilled to a total depth of 290 feet to the Dawson aquifer, and located 1,980 feet from the South Section Line, and 1,620 feet from the East Section line. Brones Well shall be re-permitted to operate pursuant to the augmentation plan decreed herein.

14. Of the statutorily described Denver Basin aquifers, the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers all exist beneath the Applicant's Property. The Dawson aquifer underlying the Applicant's Property contains not-nontributary water, while the water of the Denver, Arapahoe, and Laramie-Fox Hills aquifers underlying the Applicant's Property is nontributary. The quantity of water in the Denver Basin aquifers exclusive of artificial recharge underlying the Applicant's Property is as follows:

AQUIFER	NET SAND (Feet)	Total Appropriation (Acre-feet)	Annual Avg. Withdrawal 100 Years (Acre-feet)	Annual Avg. Withdrawal 300 Years (Acre-feet)
Dawson (NNT)	475	3,800	38.0	12.67
Denver (NT)	485	3,300	33.0	11.0
Arapahoe (NT)	255	1,730	17.3	5.77
Laramie Fox Hills (NT)	200	1,200	12.0	4.0

15. Pursuant to C.R.S. § 37-90-137(9)(c.5)(I)(B), the augmentation requirements for wells in the Dawson aquifer require the replacement to the effected stream systems of actual stream depletions on an annual basis. Applicant shall not be entitled to construct a well or use water from the not-nontributary Dawson aquifer except pursuant to an approved augmentation plan in accordance with C.R.S. § 37-90-137(9)(c.5), such as decreed herein.

16. Subject to the herein decree requirements, Applicant shall be entitled to withdraw all legally available groundwater in the Denver Basin aquifers underlying Applicant's Property. Said amounts can be withdrawn over the 100-year life for the aquifers as set forth in C.R.S. §37-90-137(4), or withdrawn over a longer period of time based upon local governmental regulations or Applicant's water needs provided withdrawals during such longer period are in compliance with the augmentation requirements of this decree. This decree describes a pumping period of 300-years as required by El Paso County, Colorado Land Development Code §8.4.7(C)(1). The average annual amounts of ground water available for withdrawal from the underlying Denver Basin aquifers, based upon the 100-year aquifer life, are determined and set forth above, based upon the October 11, 2021 Office of the State Engineer Determination of Facts described in Paragraph 7.

17. Applicant shall be entitled to withdraw an amount of groundwater in excess of the average annual amount decreed herein from the Denver Basin aquifers underlying Applicant's Property, so long as the sum of the total withdrawals from wells in each of the aquifers does not exceed the product of the number of years since the date of issuance of the original well permit or the date of entry of the decree herein, whichever comes first, and the average annual volume of water which Applicant is entitled to withdraw from each of the aquifers underlying Applicant's Property, subject to the requirement that such banking and excess withdrawals do not violate the terms and conditions of the plan for augmentation decreed herein.

18. Subject to the terms and conditions decreed herein and final approval by the State Engineer's Office pursuant to the issuance of well permits in accordance with C.R.S. §§ 37-90-137(4) or 37-90-137(10), the Applicant shall have the right to use the ground water for beneficial uses upon the Applicant's Property consisting of domestic, irrigation, commercial, stock water, recreation, wildlife, fire protection, and also for storage and augmentation purposes associated with such uses. The amount of groundwater decreed for such uses upon the Applicant's Property is reasonable as such uses are to be made for the long-term use and enjoyment of the Applicant's Property and is to establish and provide for adequate water reserves. The nontributary groundwater may be used, reused, and successively used to extinction, both on and off the Applicant's Property subject, however, to the limitations imposed on the Denver aquifer groundwater by this decree and the requirement under C.R.S. § 37-90-137(9)(b) that no more than 98% of the amount withdrawn annually shall be consumed. Applicant may use such water by immediate application or by storage and subsequent application to the beneficial uses and purposes stated herein. Provided however, as set forth above, Applicant shall only be entitled to construct a well or use water from the not-nontributary Dawson aquifer pursuant to a decreed augmentation plan entered by the Court, which includes the plan for augmentation decreed herein.

19. Withdrawals of groundwater available from the nontributary Denver, Arapahoe, and Laramie-Fox Hills aquifers beneath the Applicant's Property in the amounts determined and in accordance with the provisions of this decree will not result in injury to any other vested water rights or to any other owners or users of water.

PLAN FOR AUGMENTATION

20. The structures to be augmented are the Brones Well and four other wells constructed to the not-nontributary Dawson aquifer underlying the Applicant's Property, along with any additional or replacement wells associated therewith ("Brones Wells").

21. Pursuant to C.R.S. § 37-90-137(9)(c.5), the augmentation obligation for the Brones Wells requires the replacement of actual stream depletions. The water to be used for augmentation during pumping is the septic system return flows from the Brones Wells,

to be pumped as set forth in this plan for augmentation. The water to be used for augmentation after pumping is the reserved portion of Applicant's nontributary water rights in the Denver aquifer. Applicant shall provide for the augmentation of stream depletions caused by pumping the Brones Wells as approved herein. Water use criteria is as follows:

A. Use: The Brones Wells will pump a maximum of 5.0 acre-feet of water per year from the Dawson aquifer with each lot limited to pumping a maximum of 1.0 acre-feet per year from the Dawson aquifer. Indoor use will utilize an estimated 0.25 acre-feet of water per year per residence, with the remaining 0.75 acre-feet per year pumping entitlement available for other uses on the Applicant's Property, including, irrigation of lawn and garden and the watering of domestic animals and livestock. The foregoing figures assume the use of individual non-evaporative septic systems with resulting return flows.

B. Depletions: Maximum annual stream depletions over the 300-year pumping period will amount to approximately 22.19% of pumping. Maximum annual depletions for total residential pumping from the well are therefore 1.11 acre-feet in year 300.

C. Augmentation of Depletions During Pumping Life of Well: Pursuant to C.R.S. § 37-90-137(9)(c.5), Applicant is required to replace actual stream depletions attributable to pumping of the Brones Wells. Applicant has shown that depletions during pumping will be effectively replaced by residential return flows from non-evaporative septic systems. The annual consumptive use for non-evaporative septic systems is estimated at 10% per year per residence. At the household indoor use rate of 0.25 acre-feet per year, 0.225 acre-feet is replaced to the stream system per year per lot, utilizing a non-evaporative septic system. As such, the total annual replacement from all five lots amounts to 1.125 acre-feet. Thus, during pumping, total maximum annual stream depletions of 1.11 acre-feet will be adequately augmented. Applicant shall be required to use non-evaporative septic systems to treat and dispose of water used for in-house use. All water pumped for in-house use shall be separately measured on an annual basis, and actual annual return flows shall be calculated by multiplying the measured amount times the return flow percentage of 90%. The depletions tables are attached hereto as **Exhibit B**.

D. Augmentation of Post Pumping Depletions: This plan for augmentation shall have a pumping period of 300 years from the Dawson aquifer. For the replacement of post-pumping depletions which may be associated with the use of the Brones Wells, Applicant will reserve up to 1,500 acre-feet in the nontributary Denver aquifer groundwater decreed herein, to replace post-pumping depletions. The amount of nontributary Denver aquifer groundwater reserved may be reduced as may be determined through this Court's retained jurisdiction as described in this decree. If the Court, by order or amendment to the decree, reduces the Applicant's obligation to account for and replace

such post-pumping depletions for any reason, it may also reduce the amount of Denver aquifer groundwater reserved for such purposes, as described herein. Applicant may also utilize the Arapahoe or Laramie-Fox Hills aquifers as a replacement source as needed. Applicant also reserves the right to substitute other legally available augmentation sources for such post pumping depletions upon further approval of the Court under its retained jurisdiction. Even though this reservation is made, under the Court's retained jurisdiction, Applicant reserves the right in the future to prove that post-pumping depletions will be non-injurious. Pursuant to C.R.S. § 37-90-137(9)(b), no more than 98% of water withdrawn annually from a nontributary aquifer shall be consumed.

E. Permit: Upon entry of a decree in this case, the Applicant will be entitled to apply for a new well permit for the Brones Well and for all Brones Wells for the uses in accordance with this decree and otherwise in compliance with C.R.S. § 37-90-137.

22. Because depletions occur to both the South Platte and Arkansas River systems under the State's groundwater flow model, the Application in this case was filed in both Water Divisions 1 and 2. The return flows set forth above as the augmentation source during the pumping period will accrue to only the South Platte River system where most of the depletions will occur and where the Applicant's Property is located. Under this augmentation plan, the total amount of depletions will be replaced to the South Platte River system as set forth herein, and the Court finds that those replacements are sufficient under this augmentation plan subject to Paragraphs 42 and 43 herein.

23. This decree, upon recording, shall constitute a covenant running with Applicant's Property, benefitting and burdening said land, and requiring construction of well(s) to the nontributary Denver aquifer and pumping of water to replace post-pumping depletions under this decree. Subject to the requirements of this decree, in order to determine the amount and timing of post-pumping replacement obligations under this augmentation plan, Applicant or its successors shall use information commonly used by the Colorado Division of Water Resources for augmentation plans of this type at the time. Pursuant to this covenant, the water from the nontributary Denver aquifer reserved herein may not be severed in ownership from the Applicant's Property. This covenant shall be for the benefit of, and enforceable by, third parties owning vested water rights who would be injured by the failure to provide for the replacement of post-pumping depletions under the decree, and shall be specifically enforceable by such third parties against the owner of the Applicant's Property.

24. Applicant or its successors shall be required to initiate pumping from the Denver aquifer for the replacement of post-pumping depletions when either: (i) the absolute total amount of water available from the Dawson aquifer allowed to be withdrawn under the plan for augmentation decreed herein (1,500 acre-feet) has been pumped; (ii) the Applicant or its successors in interest have acknowledged in writing that all withdrawals for beneficial use through Brones Wells have permanently ceased, (iii) a

period of 10 consecutive years where no withdrawals of groundwater has occurred, or (iv) accounting shows that return flows from the use of the water being withdrawn are insufficient to replace depletions caused by the withdrawals that already occurred.

25. Unless modified by the Court under its retained jurisdiction, Applicant and its successors shall be responsible for accounting and replacement of post-pumping depletions as set forth herein. Applicants shall report to the Division Engineer for Water Division 1 upon request, a summary amount of water pumped by each Denver Basin well, the annual depletion, the amount of replacement water provided by each replacement source, the net impact on the stream and any other information required by the Division Engineer to properly administer the decree on an accounting form acceptable to the Division Engineer. Should Applicant's obligation hereunder to account for and replace such post-pumping stream depletions be reduced or abrogated for any reason, Applicant may petition the Court to also modify or terminate the reservation of the Denver aquifer groundwater.

26. Consideration has been given to the depletions from Applicant's use and proposed uses of water, in quantity, time and location, together with the amount and timing of augmentation water which will be provided by the Applicant, and the existence, if any, of injury to any owner of or person entitled to use water under a vested water right.

27. It is determined that the timing, quantity and location of replacement water under the protective terms in this decree are sufficient to protect the vested rights of other water users and eliminate injury thereto. The replacement water shall be of a quantity and quality so as to meet the requirements for which the water of senior appropriators has normally been used, and provided of such quality, such replacement water shall be accepted by the senior appropriators for substitution for water derived by the exercise of the Brones Wells. As a result of the operation of this plan for augmentation, the depletions from the Brones Wells will not result in injury to the vested water rights of others.

CONCLUSIONS OF LAW

28. The application for adjudication of Denver Basin groundwater and approval of plan for augmentation was filed with the Water Clerks for Water Divisions 1 and 2, pursuant to C.R.S. §§ 37-92-302(1)(a) and 37-90-137(9)(c.5). These cases were properly consolidated before Water Division 1.

29. The Applicant's request for adjudication of these water rights is contemplated and authorized by law, and this Court and the Water Referee have exclusive jurisdiction over these proceedings. C.R.S. §§ 37-92-302(1)(a), 37-92-203, and 37-92-305.

30. Subject to the terms of this decree, the Applicant is entitled to the sole right to withdraw all the legally available water in the Denver Basin aquifers underlying the

Applicant's Property, and the right to use that water to the exclusion of all others.

31. The Applicant has complied with C.R.S. § 37-90-137(4), and the groundwater is legally available for withdrawal by the requested nontributary well(s), and legally available for withdrawal by the requested not-nontributary well(s) upon the entry of this decree approving an augmentation plan pursuant to C.R.S. § 37-90-137(9)(c.5), and the issuance of well permit(s) by the State Engineer's Office. Applicant is entitled to a decree from this Court confirming its rights to withdraw groundwater pursuant to C.R.S. § 37-90-137(4).

32. The Denver Basin water rights applied for in this case are not conditional water rights, but are vested water rights determined pursuant to C.R.S. § 37-90-137(4). No applications for diligence are required. The claims for nontributary and not-nontributary groundwater meet the requirements of Colorado Law.

33. The determination and quantification of the nontributary and not-nontributary groundwater rights in the Denver Basin aquifers as set forth herein is contemplated and authorized by law. C.R.S. §§ 37-90-137, and 37-92-302 through 37-92-305.

34. The Applicant's request for approval of a plan for augmentation is contemplated and authorized by law. If administered in accordance with this decree, this plan for augmentation will permit the uninterrupted diversions from the Brones Wells without adversely affecting any other vested water rights in the Arkansas River and South Platte River or their tributaries and when curtailment would otherwise be required to meet a valid senior call for water. C.R.S. §§ 37-92-305(3), (5), and (8).

IT IS THEREFORE ORDERED, ADJUDGED AND DECREED AS FOLLOWS:

35. All of the foregoing Findings of Fact and Conclusions of Law are incorporated herein by reference, and are considered to be a part of this decretal portion as though set forth in full.

36. The Application for Adjudication of Denver Basin Groundwater and Plan for Augmentation filed by the Applicant is approved, subject to the terms of this decree.

A. Applicant is awarded a vested right to 3,800 acre-feet of groundwater from the not-nontributary Dawson aquifer underlying Applicant's Property, as quantified in Paragraph 14 or as modified by the Court under its retained jurisdiction. Of this total amount, 1,500 acre-feet may be pumped pursuant to the plan for augmentation decreed herein. The remaining 2,300 acre-feet shall not be withdrawn for any purpose except pursuant to a separate court-approved plan for augmentation authorizing the pumping of such amount.

B. Applicant is awarded a vested right to 3,300 acre-feet of groundwater from the nontributary Denver aquifer underlying Applicant's Property, as quantified in Paragraph 14 or as modified by the Court under its retained jurisdiction. Subject to the provisions of Rule 8 of the Denver Basin Rules, 2 CCR 402-6, limiting consumption to ninety-eight percent of the amount withdrawn, and the other terms and conditions of this decree, Applicant's Denver aquifer groundwater may be utilized for all purposes described in Paragraph 18, subject to the reservation of 1,500 acre-feet of the 3,300 total acre-feet awarded to be utilized only for replacement of post-pumping depletions under the plan for augmentation decreed herein.

C. Applicant is awarded a vested right to 1,730 acre-feet of groundwater from the nontributary Arapahoe aquifer underlying Applicant's Property, as quantified in Paragraph 14 or as modified by the Court under its retained jurisdiction. Subject to the provisions of Rule 8 of the Denver Basin Rules, 2 CCR 402-6, limiting consumption to ninety-eight percent of the amount withdrawn, and the other terms and conditions of this decree, Applicant's Arapahoe aquifer groundwater may be utilized for all purposes described in Paragraph 18.

D. Applicant is awarded a vested right to 1,200 acre-feet of groundwater from the nontributary Laramie-Fox Hills aquifer underlying Applicant's Property, as quantified in Paragraph 14 or as modified by the Court under its retained jurisdiction. Subject to the provisions of Rule 8 of the Denver Basin Rules, 2 CCR 402-6, limiting consumption to ninety-eight percent of the amount withdrawn, and the other terms and conditions of this decree, Applicant's Laramie-Fox Hills aquifer groundwater may be utilized for all purposes described in Paragraph 18.

37. The Applicant has furnished acceptable proof as to all claims and, therefore, the Application for Adjudication of Denver Basin Groundwater and Plan for Augmentation, as filed by the Applicant, is granted and approved in accordance with the terms and conditions of this decree. Approval of this Application will not result in any injury to senior vested water rights.

38. The Applicant shall comply with C.R.S. § 37-90-137(9)(b), requiring the relinquishment to the stream system of the right to consume two percent (2%) of the amount of the nontributary groundwater withdrawn annually. Ninety-eight percent (98%) of the nontributary groundwater withdrawn annually may therefore be consumed. No plan for augmentation shall be required to provide for such relinquishment. Applicant shall be required to demonstrate to the State Engineer prior to the issuance of a well permit that no more than ninety-eight percent of the groundwater withdrawn annually will be consumed.

39. The Brones Wells shall be operated such that combined pumping from all wells does not exceed the annual (5.0 acre-feet) and total (1,500 acre-feet) pumping limits for the Dawson aquifer as decreed herein, and is in accordance with the requirements of

the plan for augmentation described herein. The State Engineer, the Division Engineer, and/or the Water Commissioner shall not curtail the diversion and use of water by the Brones Wells so long as Applicant complies with the conditions set forth in the augmentation plan decreed herein, including the condition that the return flows from the annual diversions associated with the Brones Wells and such other wells accrue to the stream system pursuant to the conditions contained herein. To the extent that Applicant or one of its successors or assigns is ever unable to provide the replacement water required, then the Brones Wells shall not be entitled to operate under the protection of this plan, and shall be subject to administration and curtailment in accordance with the laws, rules, and regulations of the State of Colorado. Pursuant to C.R.S. §37-92-305(8), the State Engineer shall curtail all out-of-priority diversions which are not so replaced as to prevent injury to vested water rights. In order for this plan for augmentation to operate, return flows from the septic system discussed herein shall at all times during pumping be in an amount sufficient to replace the amount of stream depletions, and cannot be sold, leased, or otherwise used for any purpose inconsistent with the augmentation plan decreed herein. Applicant shall be required to have any wells pumping on the Applicant's Property providing water for in-house use and generating septic system returns prior to pumping the wells for any of the other uses identified in Paragraphs 18 or 21.A.

40. The Court retains jurisdiction over this matter to make adjustments in the allowed average annual amount of withdrawal from the Denver Basin aquifers, either upwards or downwards, to conform to actual local aquifer characteristics, and the Applicant need not file a new application to request such adjustments

A. At such time as adequate data may be available, Applicant or the State Engineer may invoke the Court's retained jurisdiction as provided in this Paragraph 40 for purposes of making a final determination of water rights as to the quantities of water available and allowed average annual withdrawals from any of the Denver Basin aquifers quantified and adjudicated herein. Any person seeking to invoke the Court's retained jurisdiction for such purpose shall file a verified petition with the Court setting forth with particularity the factual basis for such final determination of Denver Basin water rights under this decree, together with the proposed decretal language to effect the petition. Within four months of the filing of such verified petition, the State Engineer's Office shall utilize such information as available to make a final determination of water rights finding, and shall provide such information to the Court, Applicant, opposer, and the petitioning party.

B. In the event that the allowed average annual amounts decreed herein are adjusted pursuant to the retained jurisdiction of the Court, Applicants shall obtain permits to reflect such adjusted average annual amounts. Subsequent permits for any wells herein shall likewise reflect any such adjustment of the average annual amounts decreed herein.

C. If no protest is filed with the Court to such findings by the State Engineer's Office within sixty-three (63) days, this Court shall incorporate by entry of an

Amended Decree such “final determination of water rights”, and the provisions of this Paragraph 40 concerning adjustments to the Denver Basin ground water rights based upon local aquifer conditions shall no longer be applicable. In the event of a protest being timely filed, or should the State Engineer’s Office make no timely determination as provided in Paragraph 40.A., above, the “final determination of water rights” sought in the petition may be made by the Water Court after notice to all parties and following a full and fair hearing, including entry of an Amended Decree, if applicable in the Court’s reasonable discretion.

41. Pursuant to C.R.S. § 37-92-304(6), the Court shall retain continuing jurisdiction over the plan for augmentation decreed herein for reconsideration of the question of whether the provisions of this decree are necessary and/or sufficient to prevent injury to vested water rights of others, as pertains to the use of Denver Basin groundwater supplies adjudicated herein for augmentation purposes. The Court also retains continuing jurisdiction for the purpose of determining compliance with the terms of the augmentation plan. The Court further retains jurisdiction should the Applicant later seek to amend this decree by seeking to prove that post-pumping depletions are noninjurious, that the extent of replacement for post-pumping depletions is less than the amount of water reserved herein, and other post-pumping matters addressed in Paragraph 21.D. The Court’s retained jurisdiction may be invoked using the process set forth in Paragraph 44.

42. As pertains to the Denver Basin groundwater supplies, the Court shall retain continuing jurisdiction for so long as Applicant is required to replace depletions to the South Platte River system, to determine whether the replacement of depletions to the South Platte River system instead of the Arkansas River system is causing injury to water rights tributary to the Arkansas River system.

43. Any person may invoke the Court's retained jurisdiction at any time that Applicant is causing depletions, including ongoing post-pumping depletions, to the Arkansas River system and is replacing such depletions to only the South Platte River system. 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 the alleged injury and to request that the Court reconsider injury to petitioners’ vested water rights associated with the above replacement of depletions under this decree, together with the proposed decretal language to effect the petition. The party filing the petition shall have the burden of proof going forward to establish a prima facie case based on the facts alleged in the petition and that Applicant’s failure to replace depletions to the Arkansas River system is causing injury to water rights owned by that party invoking the Court's retained jurisdiction, except that the State and Division Engineer may invoke the Court's retained jurisdiction by establishing a prima facie case that injury is occurring to any vested or conditionally decreed water rights in the Arkansas River system due to the location of Applicant’s replacement water. If the Court finds that those facts are established, the Applicant shall thereupon have the burden of proof to show (i) that

petitioner is not injured, or (ii) that any modification sought by the petitioner is not required to avoid injury to the petitioner, or (iii) that any term or condition proposed by Applicant in response to the petition does avoid injury to the petitioner. The Division of Water Resources as a petitioner shall be entitled to assert injury to the vested water rights of others.

44. Except as otherwise specifically provided in Paragraphs 40-43, above, pursuant to the provisions of C.R.S. § 37-92-304(6), this plan for augmentation decreed herein shall be subject to the reconsideration of this Court on the question of material injury to vested water rights of others, for a period of ten (10) years from the date that the Applicant notifies the Division Engineer that the post-pumping period has commenced. Any person, within such period, may petition the Court to invoke its retained jurisdiction. 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 reconsider injury to petitioner's vested water rights associated with the operation of this decree, together with proposed decretal language to effect the petition. The party filing the petition shall have the burden of proof of going forward to establish a prima facie case based on the facts alleged in the petition. If the Court finds those facts are established, Applicant shall thereupon have the burden of proof to show: (i) that the petitioner is not injured, or (ii) that any modification sought by the petitioner is not required to avoid injury to the petitioner, or (iii) that any term or condition proposed by Applicant in response to the petition does avoid injury to the petitioner. The Division of Water Resources as a petitioner shall be entitled to assert injury to the vested water rights of others. If no such petition is filed within such period and the retained jurisdiction period is not extended by the Court in accordance with the provisions of the statute, this matter shall become final under its own terms.

45. Pursuant to C.R.S. § 37-92-502(5)(a), the Applicant shall install and maintain such water measurement devices and recording devices as are deemed necessary by the State Engineer or Division Engineers, and the same shall be installed and operated in accordance with instructions from said entities. Applicant is to install and maintain a totalizing flow meters on the Brones Wells. All diversions from the Brones Wells shall be metered and the data collected at least annually by Applicant and together with any calculations necessary, shall be provided to the State Engineer or Division Engineers as requested by said entities.

46. Two or more wells constructed into a given aquifer shall be considered a well field. In effecting production of water from such well field, Applicant may produce the entire amount that may be produced from any given aquifer through any combination of wells within the well field. As such, Applicant waives any 600-foot spacing requirements.

47. The entire length of the open bore hole shall be geophysically surveyed prior to casing and copies of the geophysical log submitted to the State Engineer. Applicants may provide a geophysical log from an adjacent well or test hole, pursuant to

Rule 9A of the Statewide Rules and acceptable to the State Engineer, which fully penetrates the aquifer, in satisfaction of the above requirement.

48. A site specific evaluation must be conducted with each well permit to identify the correct aquifer interval due to the varied elevations of the aquifers and surface topography. A well constructed to withdraw the decreed groundwater may only withdraw groundwater from a single aquifer. Groundwater production shall be limited to the specific identified aquifer. Plain, unperforated casing must be installed and properly grouted to prevent withdrawal from or intermingling of water from zones other than those for which the well was designed.

49. Each well shall be permanently identified by its permit number, this Water Court Case Number, and the name of the producing aquifer on the above-ground portion of the well casing or on the pump house.

50. This Ruling of Referee, when entered as a decree of the Water Court, shall be recorded in the real property records of El Paso County, Colorado.

Dated: February 9, 2022

BY THE COURT:


A handwritten signature in black ink that reads "John S. Cowan". The signature is written in a cursive, flowing style.

John Cowan
Water Referee
Water Division One

DECREE

The Court finds that no protest was made in this matter, therefore the foregoing ruling is confirmed and approved, and is hereby made the Judgement and Decree of this Court.

Dated: March 9, 2022



Shannon Lyons
Alternate Water Judge
Water Division One

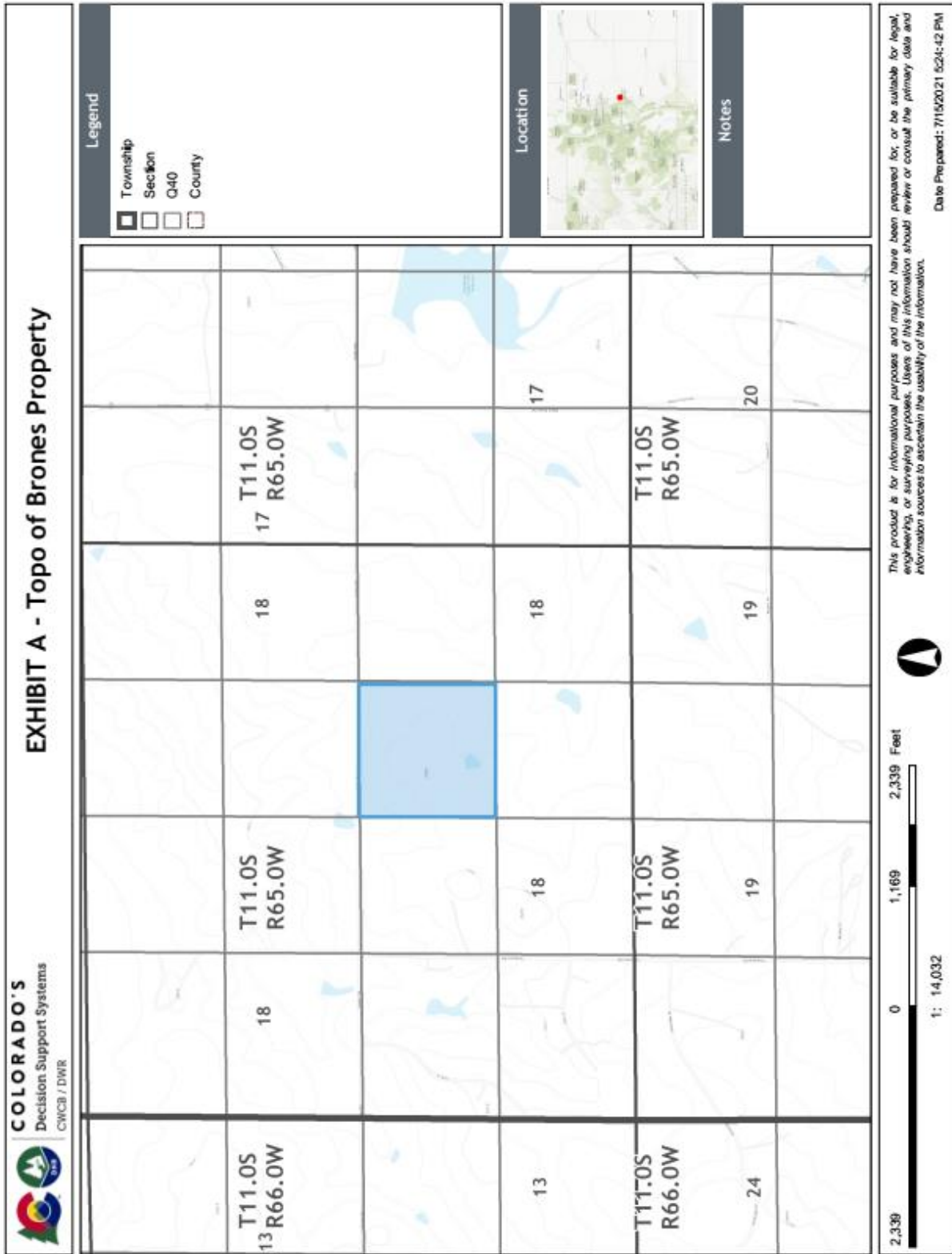


EXHIBIT B

Table 1: Estimated Groundwater Volumes for Brones Property

Location: NW1/4 of SE1/4 Section 18, Township 11 S, Range 65 W
Address: 6665 Walker Road, Colorado Springs, CO • Receipt No.: 5100000421
Well Permit: N/A
Elevation: 7,481 ft
Surface Area: 40 Acres
Number of lots: 5
Designated Basin: None
Management District: None

Aquifer	Surface Area (Acres)	Net Sand (ft) ¹	Avg. Specific Yield (%)	Total Approp. Volume (AF)	100-year Ann. Approp. (AF/yr)	300-year Ann. Approp. (AF/yr)
Upper Dawson (NNT)	40.0	477.40	20.00%	3819.20	38.19	12.73
Denver (NT)	40.0	485.80	17.00%	3303.44	33.03	11.01
Upper Arapahoe (NT)	40.0	254.60	17.00%	1731.28	17.31	5.77
Laramie-Fox Hills (NT)	40.0	202.70	15.00%	1216.20	12.16	4.05

Note 1: Estimated saturated thickness taken from SB-5 Bedrock Aquifer Evaluation Determination Tool for the Denver Basin.

Table 2: Estimated Annual Water Use and Pumping Rates - Dawson Aquifer

Appendix B: Estimated Annual Water Use and Pumping Rates

Use	Constant	Increment
Two Properties		
Domestic Indoor	0.250	AF/year
Irrigation ¹	0.640	AF/year
Stock Watering ²	0.110	AF/year
Total Well Demand	1.000	AF/year/lot

Note 1: Assume 11,130 ft² at 0.0566 per 1,000 ft²

Note 2: Assume 10 horses at 0.011 AF/horse/year

Total Annual Usage (5 wells total) = 5.00 AF/year

Estimated Return Flows through Septic (domestic use only)

Percent of domestic 90.00% of Residence
Volume return 1.125 AF/year

Table 3: AUG-3 Denver Basin Depletion Model - Maximum Depletions
Using SB 5-year_Timestep_2019 Model for wells outside of Designated Basins

Dawson Aquifer - Not-Nontributary

Pumping Interval	Formation	Total Depl. (AF/yr)	Total Depl. (% of Pumping)	Year of Max. Depletion	Div. 1 Depletion (AF/yr)	Div. 2 Depletion (AF/yr)	Designated Basin (AF/yr)
300-year pumping period							
Pumping Period	Dawson (NNT)	1.109	22.18%	300	0.696	0.325	0.088
Model Period	Dawson (NNT)	1.109	22.18%	300	0.696	0.325	0.088

Total Depletions over 300-year pumping period = 173.584 AF

Total Replacements over 300-year pumping period = 337.500 AF

Total Replacement credit during 300-year period = 163.92 AF

Total Post-Pumping Depletion = 552.50 AF

Total Denver Basin Allocation (including credit) = 388.58 AF

Collin Brones
21CW3119

EXHIBIT B

2/7/2022

Summary Table 1					Summary Table 2				
Applicant Name	Collin Brones / Kurt Brown	Model Period (years)	700	Collin Brones / Kurt Brown	Applicant Name	Collin Brones / Kurt Brown	Model Period (years)	700	Collin Brones / Kurt Brown
Case No. or Receipt No.	Parcel 51-Q-421	Case No. or Receipt No.	Parcel 51-Q-421	Parcel 51-Q-421	Case No. or Receipt No.	Parcel 51-Q-421	Case No. or Receipt No.	Parcel 51-Q-421	Parcel 51-Q-421
Number of Years of Pumping	300	Number of Years of Pumping	300	300	Number of Years of Pumping	300	Number of Years of Pumping	300	300
Pumping Rate (ac-ft/yr)	5.00	Pumping Rate (ac-ft/yr)	5.00	5.00	Pumping Rate (ac-ft/yr)	5.00	Pumping Rate (ac-ft/yr)	5.00	5.00
Total Volume (ac-ft)	1500	Total Volume (ac-ft)	1500	1500	Total Volume (ac-ft)	1500	Total Volume (ac-ft)	1500	1500
Legal for All Sections	SEC 18 T11S R65W	Legal for All Sections	SEC 18 T11S R65W	SEC 18 T11S R65W	Legal for All Sections	SEC 18 T11S R65W	Legal for All Sections	SEC 18 T11S R65W	SEC 18 T11S R65W
Model	DA02	Model	DA02	DA02	Model	DA02	Model	DA02	DA02
Aquifer	DAWSON	Aquifer	DAWSON	DAWSON	Aquifer	DAWSON	Aquifer	DAWSON	DAWSON
100th Year Stream Depletion					Maximum Stream Depletion				
Streams	100th Year Depletion (ac-ft/yr)	q/Q (%)	Streams	Max. Depletion during model period (ac-ft/yr)	Max. Depletion during model period (ac-ft/yr)	Year during model period	Max. Depletion during pumping period (ac-ft/yr)	Year during pumping period	Year during pumping period
MONUMENT	0.05	1.06	MONUMENT	0.20	0.20	340	0.19	300	300
EAST PLUM-W&E BRANCH	0.00	0.03	EAST PLUM-W&E BRANCH	0.08	0.08	650	0.03	300	300
RUNNING CREEK	0.00	0.01	RUNNING CREEK	0.01	0.01	605	0.01	300	300
WEST CHERRY	0.10	2.01	WEST CHERRY	0.25	0.25	310	0.25	300	300
EAST CHERRY	0.20	3.95	EAST CHERRY	0.35	0.35	300	0.35	300	300
CHERRY	0.01	0.13	CHERRY	0.08	0.08	495	0.06	300	300
KIOWA	0.01	0.20	KIOWA	0.12	0.12	510	0.08	300	300
KETTLE	0.02	0.32	KETTLE	0.06	0.06	335	0.06	300	300
SAND-DIV2	0.01	0.17	SAND-DIV2	0.10	0.10	430	0.08	300	300
BIG SANDY	0.00	0.00	BIG SANDY	0.00	0.00	1000	0.00	300	300
BLACK SQUIRREL-UBSCDB	0.00	0.01	BLACK SQUIRREL-UBSCDB	0.02	0.02	545	0.01	300	300
Total	0.39	7.90	Total	1.11	1.11	300	1.11	300	300
South Platte (No Designated Basin Streams)	0.31	6.14	South Platte (No Designated Basin Streams)	0.70	0.70	300	0.70	300	300
Arkansas (No Designated Basin Streams)	0.08	1.55	Arkansas (No Designated Basin Streams)	0.35	0.35	360	0.32	300	300
Designated Basin	0.01	0.21	Designated Basin	0.13	0.13	525	0.09	300	300

Created by JDS-Hydro / RESPEC on February 07, 2022
Values for 'Depletion as a % of Pumping' (q/Q) are not calculated when the pumping rate (Q) is changed to anything but zero

Summary of Total Depletion (South Platte+Arkansas+Designated Basin Streams)											
Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)	Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)	Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)	Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)
5	0.54	0.027	255	19.17	0.958	505	18.44	0.922	755	13.64	0.682
10	1.04	0.052	260	19.52	0.976	510	18.34	0.917	760	13.55	0.678
15	1.49	0.074	265	19.85	0.993	515	18.24	0.912	765	13.47	0.674
20	1.90	0.095	270	20.20	1.010	520	18.13	0.906	770	13.39	0.669
25	2.30	0.115	275	20.53	1.027	525	18.02	0.901	775	13.30	0.665
30	2.68	0.134	280	20.86	1.043	530	17.92	0.896	780	13.22	0.661
35	3.06	0.153	285	21.20	1.060	535	17.82	0.891	785	13.14	0.657
40	3.43	0.172	290	21.53	1.077	540	17.72	0.886	790	13.06	0.653
45	3.81	0.190	295	21.86	1.093	545	17.62	0.881	795	12.98	0.649
50	4.18	0.209	300	22.18	1.109	550	17.52	0.876	800	12.90	0.645
55	4.55	0.227	305	21.98	1.099	555	17.40	0.870	805	12.82	0.641
60	4.92	0.246	310	21.79	1.090	560	17.30	0.865	810	12.74	0.637
65	5.29	0.264	315	21.67	1.084	565	17.20	0.860	815	12.66	0.633
70	5.66	0.283	320	21.57	1.079	570	17.10	0.855	820	12.59	0.629
75	6.03	0.302	325	21.50	1.075	575	17.00	0.850	825	12.51	0.626
80	6.40	0.320	330	21.43	1.071	580	16.89	0.845	830	12.43	0.622
85	6.78	0.339	335	21.37	1.069	585	16.79	0.840	835	12.36	0.618
90	7.15	0.358	340	21.31	1.066	590	16.69	0.835	840	12.28	0.614
95	7.52	0.376	345	21.25	1.063	595	16.59	0.830	845	12.21	0.610
100	7.90	0.395	350	21.18	1.059	600	16.50	0.825	850	12.13	0.607
105	8.27	0.414	355	21.12	1.056	605	16.40	0.820	855	12.06	0.603
110	8.65	0.432	360	21.07	1.053	610	16.30	0.815	860	11.98	0.599
115	9.02	0.451	365	20.99	1.050	615	16.20	0.810	865	11.91	0.596
120	9.39	0.470	370	20.92	1.046	620	16.10	0.805	870	11.84	0.592
125	9.77	0.488	375	20.86	1.043	625	16.01	0.801	875	11.76	0.588
130	10.14	0.507	380	20.78	1.039	630	15.91	0.795	880	11.69	0.585
135	10.52	0.526	385	20.70	1.035	635	15.81	0.790	885	11.62	0.581
140	10.89	0.544	390	20.63	1.032	640	15.71	0.785	890	11.55	0.578
145	11.26	0.563	395	20.54	1.027	645	15.62	0.781	895	11.48	0.574
150	11.63	0.582	400	20.47	1.024	650	15.52	0.776	900	11.41	0.571
155	12.00	0.600	405	20.39	1.019	655	15.43	0.772	905	11.34	0.567
160	12.37	0.619	410	20.30	1.015	660	15.33	0.766	910	11.27	0.564
165	12.74	0.637	415	20.21	1.011	665	15.24	0.762	915	11.20	0.560
170	13.11	0.656	420	20.12	1.006	670	15.14	0.757	920	11.14	0.557
175	13.48	0.674	425	20.02	1.001	675	15.05	0.753	925	11.07	0.553
180	13.85	0.692	430	19.94	0.997	680	14.95	0.748	930	11.00	0.550
185	14.21	0.711	435	19.85	0.993	685	14.87	0.743	935	10.93	0.547
190	14.58	0.729	440	19.75	0.987	690	14.78	0.739	940	10.87	0.543
195	14.94	0.747	445	19.65	0.982	695	14.69	0.735	945	10.80	0.540
200	15.30	0.765	450	19.56	0.978	700	14.59	0.730	950	10.74	0.537
205	15.66	0.783	455	19.46	0.973	705	14.50	0.725	955	10.67	0.534
210	16.01	0.801	460	19.36	0.968	710	14.42	0.721	960	10.61	0.530
215	16.37	0.819	465	19.26	0.963	715	14.33	0.716	965	10.54	0.527
220	16.73	0.837	470	19.15	0.958	720	14.24	0.712	970	10.48	0.524
225	17.08	0.854	475	19.05	0.953	725	14.15	0.708	975	10.42	0.521
230	17.43	0.872	480	18.95	0.948	730	14.06	0.703	980	10.35	0.518
235	17.79	0.890	485	18.85	0.943	735	13.98	0.699	985	10.29	0.515
240	18.14	0.907	490	18.75	0.937	740	13.89	0.695	990	10.23	0.511
245	18.49	0.924	495	18.65	0.932	745	13.81	0.690	995	10.17	0.508
250	18.82	0.941	500	18.55	0.927	750	13.72	0.686	1000	10.11	0.505

Created by JDS-Hydro / RESPEC on February 07, 2022

Values for 'Depletion as a % of Pumping' (q/Q) are not calculated when the pumping rate (Q) is changed to anything but zero