



WATER RESOURCES REPORT

FOR KNECHT SUBDIVISION



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DECEMBER 2024 – FINAL REPORT

Project Number W0265.24026





EXECUTIVE SUMMARY

Water needs and resources for the Knecht Subdivision have been evaluated based upon the approved determinations of water rights and replacement plan. Knecht Subdivision is a proposed 5-lot subdivision in El Paso County, CO located at on N. Meridian Road at the Black Squirrel Creek crossing in the NW quarter of the NW quarter of Section 18, Township 12 S, Range 64 W, 6th pm.

The decreed water rights and replacement plan in place for the subject parcels are adequate to meet the needs of the five (5) lots proposed for the subdivision on a 300-year basis. Sufficient water quantity, quality, and dependability have been documented. The installation of household reverse osmosis systems is recommended to address slightly elevated radionuclides and manganese in the source water.



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1.0 INTRODUCTION

1.1 LOCATION

In accordance with Section 8.4.7(B)(1)(a) of the El Paso County Land Development Code (EPCLDC), this report has been prepared to provide the data required for the El Paso County Planning Commission and the Board of County Commissioners to determine whether the water supply for the proposed subdivision is adequate in terms of quantity, quality, and dependability.

The subject property is located in El Paso County, CO on N. Meridian Road at the Black Squirrel Creek crossing and is in the NW quarter of the NW quarter of Section 18, Township 12 S, Range 64 W, 6th pm. The 21.03-acre property is comprised of three parcels designated by El Paso County parcel numbers 4218000023 (13.07 Ac), 4218000004 (6.91 Ac), and 4218000002 (1.05 Ac.) See Figure 1-1-1. The Owner wishes to subdivide the property into five (5) lots through the El Paso County Land Development and Planning Process.

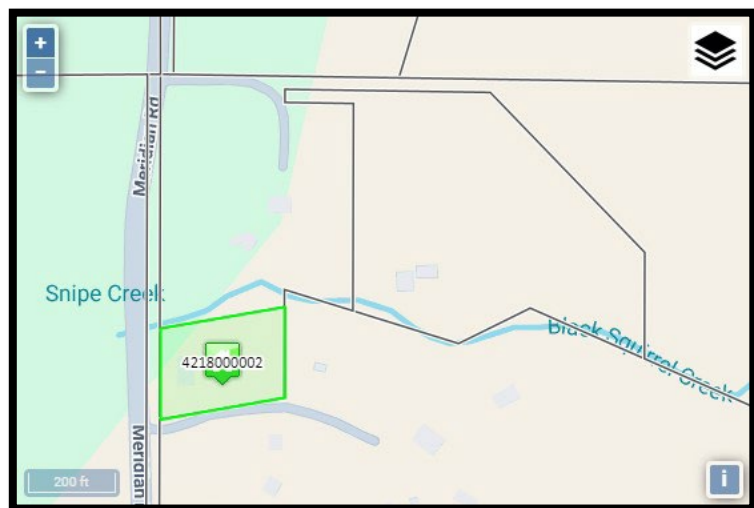
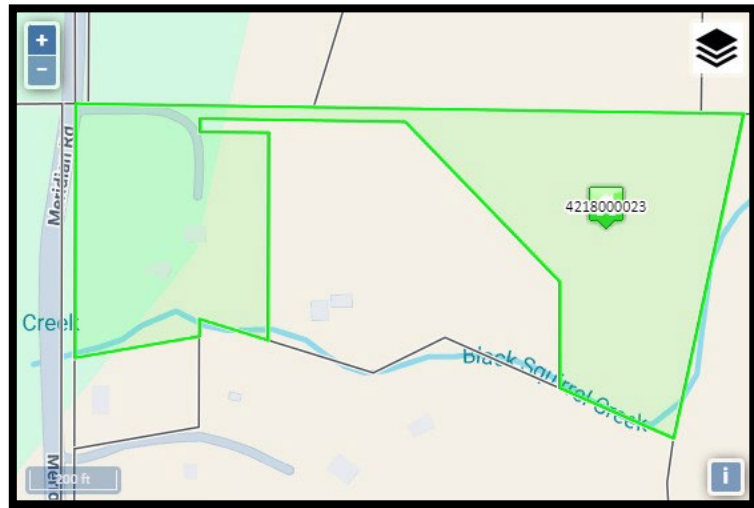


Figure 1-1-1 Subject Property - El Paso County Assessor Mapping



1.2 BACKGROUND

Knecht Subdivision is a proposed 5-lot subdivision of three existing parcels. Water rights were originally obtained for the 19.98 acres of overlying land shown in Figure 1-2-1. Applications for additional subsurface rights for the 1.05-acre parcel, which was added to the subdivision, were subsequently obtained. See Section 4.0 for a detailed discussion of water rights and supply.

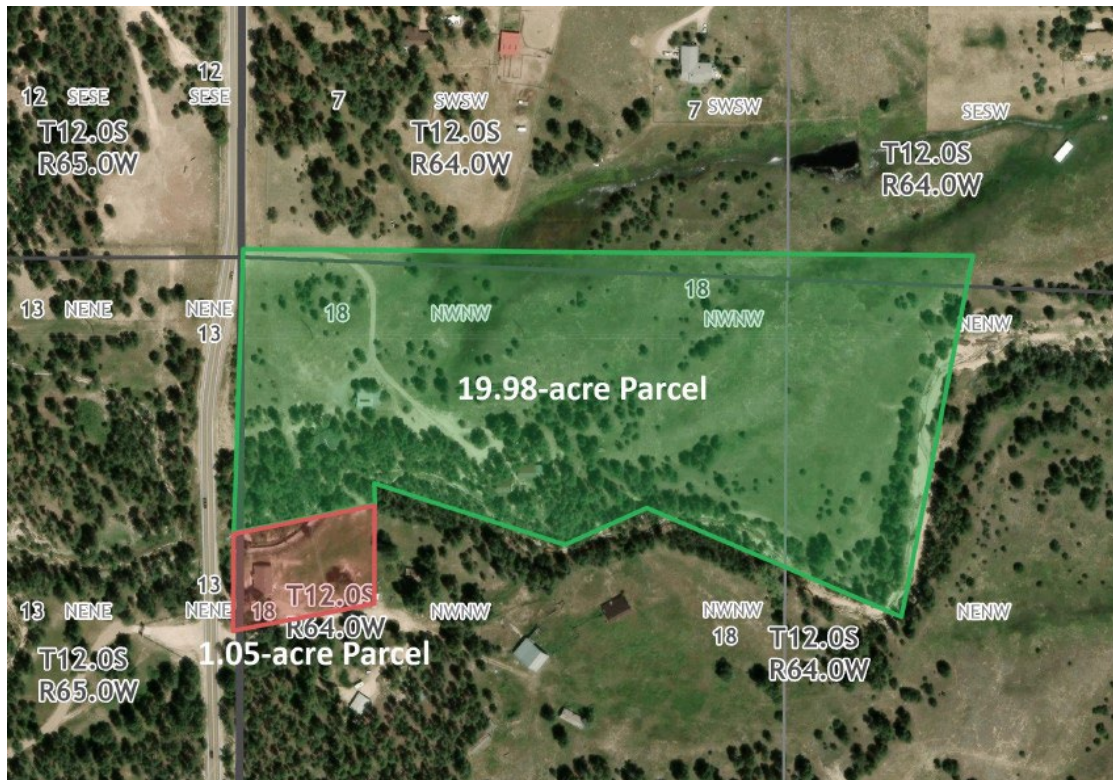


Figure 1-2-1 Parcels Comprising Overlying Land in Water Rights Documents

2.0 PROJECTED LAND USES

2.1 SUBDIVISION PLANS

The 21.03-acre aggregate parcel is proposed to be divided into five (5) lots of approximately 1.05 Ac, 4.76 Ac, 5.08 Ac, 5.07 Ac, and 5.06 Ac. Single-family homes exist on three of these lots, while two of the proposed lots have not yet been developed. Refer to *Appendix A – Land Use Exhibit*.

3.0 WATER NEEDS AND PROJECTED DEMANDS

3.1 WATER DEMAND SUMMARY

The annual demands of the proposed subdivision are 2.5 AF. This is based upon a 0.50 AF/yr demand per lot, which includes a minimum of 0.26 AF/yr for in-house domestic uses. All water demands for the subdivision are proposed to be met using residential wells drilled into the not-nontributary Upper Dawson aquifer, a non-renewable ground water source. This demand estimate is based upon information included in the "Summary of Plan" in the application to amend the existing replacement plan



3557-BD (Amendment no. 2) dated April 4, 2024, which is included in *Appendix C – Determinations, Applications, Replacement Plan*. Estimated water demands and wastewater loads based upon presumptive use values are shown in Table 3-1-1 below.

Table 3-1-1 Summary of Anticipated Water Demands and Wastewater Loads

# of SFE's	Annual Indoor Use ^(a)	Average Daily Indoor Use	Annual Irrigation Use ^(b)	Annual Livestock Watering Use ^(c)	Total Annual Use (indoor + outdoor)	Average Daily Wastewater (septic) Flow
	(AF/yr)	(gpd)	(AF/yr)	(AF/yr)	(AF/yr)	(gpd)
5	1.3	1160	0.98	0.22	2.5	1044

(a) Assuming a minimum of 0.26 AFyr/SFE per 8.47(B)(7)(d) of the El Paso County Land Development Code, single-family residences

(b) Assuming 0.0566 AF/1000 SF/year per 8.47(B)(7)(d) of the El Paso County Land Development Code, 3,463 SF of lawn/garden/trees = 0.196 AF/lot

(c) Assuming 0.011 AF/horse/year, 4 horses per unit = 0.044 AF/lot

3.2 UNIT WATER USER CHARACTERISTICS

Unit water user characteristics have been established using a single-family equivalent (SFE) basis. Each planned single-family home is counted as one SFE, with projected usage data per unit based upon Chapter 8 of the *El Paso County Land Development Code*.

3.3 DEMAND VERSUS SUPPLY

The overall projected annual demand of 2.5 acre-feet for the proposed subdivision is less than the amount of supply available from the water rights portfolio for the property.

4.0 WATER RIGHTS AND SUPPLY

4.1 EXISTING AND PENDING WATER RIGHTS

The approved determinations and replacement plan are included in *Appendix C - Determinations and Replacement Plan*.

4.1.1 ISSUED DETERMINATIONS

Ground water rights for the 13.07-Ac and 6.91-Ac parcels, comprising the 19.98-Ac area shown in Figure 1-2-1, were adjudicated on July 24, 2018 per the following documents:

- / 3557-BD (Dawson aquifer)
- / 3556-BD (Denver aquifer)
- / 3555-BD (Arapahoe aquifer)
- / 3554-BD (Laramie-Fox Hills aquifer)



Ground water rights for the 1.05-Ac parcel (Figure 1-2-1) were adjudicated on November 21, 2024:

- / 4733-BD (Dawson aquifer)
- / 4732-BD (Denver aquifer)
- / 4731-BD (Arapahoe aquifer)
- / 4730-BD (Laramie-Fox Hills aquifer)

Determination of water right 3557-BD was subsumed into determination 4733-BD and the underlying groundwater allocated by 3557-BD shall only be used in accordance with the 4733-BD determination.

4.1.2 WELLS

Two existing wells exist within the subdivision boundary (operating under permit no.'s 77690 and 134102.) Well permit no. 77690 will be cancelled and the well re-permitted in accordance with the order for determination 4733-BD.

4.1.3 WATER RIGHTS SUMMARY

Table 4-1-1 summarizes the approved determinations, including 100-year and 300-year allocations.

Table 4-1-1 Water Rights Summary and Adjudicated Appropriations

Basin	Aquifer	Determination	Tributary Status ^(a)	Overlying Land Area	Total Decreed Water	Annual Allocation (100-yr)	Annual Allocation (300-yr)
				(Ac)	(AF)	(AF/yr)	(AF/yr)
Upper Black Squirrel Creek Designated Basin	Dawson	3557-BD	NNT	19.98	1130 ^(c)	11.30 ^(c)	3.77
	Denver	3556-BD	NT	19.98	1020	10.20	3.40
	Arapahoe	3555-BD	NT	19.98	764	7.64	2.55
	Laramie-Fox Hills	3554-BD	NT	19.98	599	5.99	2.00
Upper Black Squirrel Creek Designated Basin	Dawson	4733-BD	NNT	1.05	0 ^(b)	0 ^(b)	0
	Denver	4732-BD	NT	1.05	52.7	0.527	0.176
	Arapahoe	4731-BD	NT	1.05	41.1	0.411	0.137
	Laramie-Fox Hills	4730-BD	NT	1.05	30.7	0.307	0.102
Total				21.03	3637.5	36.37	12.12

(a) NT = nontributary; NNT = not-nontributary
 (b) 62.0 AF of stored water; allocation was reduced to 0 AF due to historical withdrawals of 73.5 AF from the Dawson aquifer from a well (permit no. 77690) located on the property.
 (c) Total volume of withdrawal was reduced from 1140 AF to 1130 AF and average annual withdrawal amount was reduced from 11.4 AF/yr to 11.3 AF/yr in 3557-BD in accordance with Rule 5.3.2.4 of the Designated Basin Rules to account for water historically withdrawn from wells operated under permit no.'s 77690 and 134102. (See 3557-BD dated 7/24/18.)



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4.2 PLACE OF USE

The Denver, Arapahoe, and Laramie-Fox Hills determinations for the 19.98-Ac parcel list only the 19.98 Ac of overlying land as the place of use. Similarly, the determination for the 1.05-Ac parcel lists only the 1.05 Ac of overlying land as the place of use. The most recent determination for the Dawson aquifer (4733-BD) applies to what the Division calls the Combined Area/place of use including both the 19.98-Ac parcel and the 1.05-Ac parcel (21.03 Ac.)

Since no water has been allocated from the Dawson aquifer underlying the 1.05-Ac parcel, Dawson aquifer withdrawals from the 19.98-Ac parcel will be utilized for demands on the 1.05-Ac parcel in accordance with 4733-BD.

4.3 TYPE OF USE

Both the adjudicated and pending water rights specify the type of use as domestic, irrigation, livestock watering, and replacement. The subject property is wholly within the boundaries of the Upper Black Squirrel Creek Designated Ground Water Basin.

4.4 ADEQUACY OF WATER RIGHTS

The total amount of decreed water for the Upper Dawson aquifer as well as annual appropriations on both a 100-year and 300-year basis support sufficient water quantity for the proposed subdivision. This is based upon estimated and allowable use and the required replacement amount. Additional rights in the Denver, Arapahoe, and Laramie-Fox Hills formations have been secured and will remain available for future use.

4.5 REPLACEMENT PLAN

The applicant plans to utilize five wells to divert 2.5 Ac-ft annually from the Dawson aquifer for a period of 300 years. Replacement plan no. 4733-RP (approved on November 21, 2024, see *Appendix C – Determinations and Replacement Plan*) cancels replacement plan no. 3557-RP (approved on June 12, 2018 and amended on August 30, 2022). 4733-RP allows for a maximum of 0.50 AF/yr withdrawal per lot (maximum of 2.5 AF/yr for the 5-lot subdivision), which includes a minimum of 0.20 AF/yr per lot for in-house domestic uses. Maximum annual depletions have been determined to amount to 3.08 percent of pumping in the 300th year of pumping – or a maximum of 0.077 annual acre-feet. The Owner proposes to provide aggregate replacement water in the amount of 0.9 AF/yr to the alluvial aquifer of the Upper Black Squirrel Creek Designated Ground Water Basin using non-evaporative septic systems. Septic return flows will be credited for 90 percent of diversions for in-house domestic use or 0.18 AF/yr per lot (assuming a *minimum* domestic use per household of 0.20 AF/year).

Therefore, a minimum of 0.18 AF/yr per lot return flow will be adequate to replace overall depletions in the alluvium created by pumping 0.50 AF/yr from each lot's well.

A totalizing flow meter shall be installed on each well to track the amount of water pumped; replacement of depletions shall be provided annually per the conditions of the replacement plan. Records must be kept in accordance with the requirements of the replacement plan.

5.0 WATER SYSTEM FACILITIES AND PHYSICAL SUPPLY

5.1 SOURCE OF SUPPLY

Supply for the five (5) residential lots will be met with two existing (re-permitted) and three future Upper Dawson aquifer wells.

5.2 WATER TREATMENT

Water from a well within the subject property was tested for constituents required by El Paso County regulations for a confined aquifer. (See water quality discussion below.) A central water treatment system will not be provided and individual water supply, treatment, and/or storage equipment *will not* be considered part of a community system by the Colorado Department of Public Health and Environment (CDPHE.) Any desired treatment of existing and future wells will be the responsibility of individual homeowners.

5.3 WATER STORAGE

Water storage (other than potential individual cisterns or pressure tanks) will not be constructed.

5.4 WATER DISTRIBUTION

Since there is no central water system proposed for this subdivision, no distribution lines or pumping equipment will be provided. This also means that fire flow capabilities will not be provided; lot owners will be made aware of this through the subdivision process.

5.5 WATER QUALITY

Section 8.4.7(B)(10)(a) in the current EPC-LDC addresses confined aquifer sampling requirements and requires that the applicant obtain analyses results for twenty-one (21) Volatile Organic Chemical (VOC) Contaminants, twenty-nine (29) Synthetic Organic Chemical Contaminants (SOC), fourteen (14) Inorganic Chemicals, ten (10) Secondary Maximum Contaminants, indicators of bacteriological pathogens (i.e. E. coli), inorganic anions, and two (2) radionuclides. Per this same Section and since the proposed wells will be drilled into the Upper Dawson formation, which is considered a Denver Basin Aquifer, VOCs and SOCs are not required as part of the stipulated chemical analysis.

On April 3, 2024, representatives with RESPEC Company, LLC sampled the existing Dawson aquifer well (well permit no. 77690) located at 12375 Meridian Rd. Samples were sent overnight to Colorado Analytical Laboratories to meet specified holding times for certain constituents. Results were tabulated and compared to primary and secondary Maximum Contaminant Levels (MCLs and SMCLs) as established by the Colorado Department of Public Health and Environment's (CDPHE) latest drinking water standards. Tabulated results from the water quality analysis are shown in Table 5-5-1 below, while full reports are included in *Appendix D – Water Quality Results*.



Table 5-5-1 Water Quality Summary of Requirements and Results

**El Paso County Land Development Code
Water Quality Requirements and Results**

Dawson Confined Aquifer
Knecht Minor Subdivision
12375 Meridian Road
Sampled - 04/03/24

Compound	Units	MCL/SMCL	Result
Antimony	mg/l	0.006	ND
Arsenic	mg/l	0.01	ND
Barium	mg/l	2	0.1521
Beryllium	mg/l	0.004	ND
Cadmium	mg/l	0.005	ND
Chromium	mg/l	0.1	ND
Cyanide (Total)	mg/l	0	ND
Fluoride	mg/l	4	ND
Mercury	mg/l	0.002	ND
Nitrate as N	mg/l	10	ND
Nitrite as N	mg/l	1	ND
Total Nitrate/Nitrite as N	mg/l	10	ND
Selenium	mg/l	0.05	ND
Thallium	mg/l	0.002	ND
Aluminum	mg/l	0.05	0.002
Chloride	mg/l	250	9.6
Langlier Index			-1.75
Iron	mg/l	0.3	0.13
Manganese	mg/l	0.05	0.1134
pH		6.5 - 8.5	6.88
Silver	mg/l	0.1	ND
Sulfate	mg/l	250	7.8
TDS	mg/l	500	125
Zinc	mg/l	5	0.016
Gross Alpha/Beta	pCi/l	15	17.1
Combined Radium 226+228	pCi/l	5	6.4
Total Coliform	#/100 ml	Absent	ND

Green = Result below MCL - Acceptable Water Quality

The well water was found to be high in both Gross Alpha/Beta (result of 17.1 PCi/L vs MCL of 15 PCi/L) and Combined Radium 226+228 (6.4 PCi/L was above the MCL of 5 PCi/L.) Gross alpha and beta particles usually indicate/are found concurrent with Radium 226. All other were found to be below respective primary and secondary drinking standards except manganese (result 0.1134 mg/L; SCML of 0.05 mg/L.)

Combined radium can be a byproduct of the presence of uranium and can be considered a chronic contaminant. This means that it is unlikely that there will be immediate harm to individuals who are immediately exposed to the presence of radium. However, over time, continued exposure to uranium



can have detrimental impacts on humans, including the occurrence of certain forms of cancer (especially bone cancer), anemia, cataracts, and fractured teeth. Exposure to alpha radiation has been associated with certain types of cancer, including lung, bone, and brain cancer, and may present other health risks. Although the MCL for Gross Alpha is 15 PCi/L, the MCL goal for this constituent is zero. Finally, while long-term exposure to high levels of manganese can pose health risks, this mineral is most known for the aesthetic issues it causes such as stained fixtures.

Given the levels of Combined Radium observed in each well, the RESPEC Company, LLC would recommend the installation of a whole house Reverse Osmosis (RO) unit in each residence to reduce the levels of radium and the associated alpha and beta particles from the source water to safer levels. An RO system would also be capable of reducing manganese levels. It should be noted that the reverse osmosis unit will generate a concentrated backflow that can be wasted to septic systems. Given the relatively small amounts of concentrated constituents generated by a single residence reverse osmosis unit, each household's septic system should have the capacity to sufficiently treat the generated wastewater loadings.

After reviewing the analytical results, RESPEC Company, LLC does not find cause for concern in utilizing the underlying Dawson Aquifers for public consumption or irrigation uses within the proposed subdivision. However, RESPEC would recommend that the developer and home builder provide a whole-house RO unit for each household to remove observed radionuclides and reduce manganese levels. The above opinions are RESPEC's recommendations for additional treatment within the proposed residences to bring the source water into compliance with established Colorado Drinking Water Standards.

6.0 EL PASO COUNTY MASTER PLANNING ELEMENTS

6.1 EL PASO COUNTY WATER MASTER PLAN 2040 AND 2060 PROJECTIONS

The subject property is within El Paso County Water Master Planning Region 3 – east of N. Meridian Road and straddling Upper Black Squirrel Creek at Region 3's northern boundary.

6.2 PROJECTED BUILDOUT

Full buildout of the subject property will be five (5) total lots; three (3) of the proposed lots currently have single-family homes on them and two (2) of the proposed lots are undeveloped at this time.

6.3 LONG-TERM PLANNING (2040 AND 2060) AND FUTURE SOURCES OF SUPPLY

Consistent with El Paso County criteria, the supply of water has been evaluated for a 300-year pumping duration and appears to be more than adequate for full buildout, which would include both the 2040 and 2060 scenarios. However, the proposed supply in the Upper Dawson aquifer is characterized as non-renewable. If additional supply is needed (beyond 300 years), the Owner has obtained (and additional applications are under review) for nontributary water rights in the Denver, Arapahoe, and Laramie-Fox Hills formations for the overlying land area within the proposed subdivision (totaling 21.03 acres.)



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6.4 WATER SYSTEM INTERCONNECTIONS

The nearest water district to the proposed subdivision is Meridian Service Metropolitan District (MSMD) to the south-southeast. The relative location of the proposed Knecht subdivision is shown in Figure 6-4-1 (at the northwest corner of the map.) While connection to MSMD would allow for the provision of fire flow within the subdivision, for numerous reasons, it is not feasible to pursue an expansion of service from MSMD, including but not limited to:

- / The southern extent of the Knecht subdivision is approximately 1-1/4 miles from the existing 12" line in MSMD. MSMD allows a maximum length of 1000' of dead-end line; therefore, extension would likely require looping to connect to the Latigo Trails lines. The cost of this, which could include over 3 miles of waterline, including two creek crossings, would be prohibitive.
- / MSMD would take over water rights for any land into which it extends service, however the District would likely not consider the Knecht Subdivision water rights a valuable addition to its portfolio. MSMD is in need of significant quantities of renewable water such as the District's existing rights to Arapahoe and Laramie-Fox Hills water, which it can use to extinction as well as to recharge the Arapahoe formation.

While it appears that the properties between the Knecht Subdivision and the MSMD boundary may currently be serviced only by wells, MSMD's boundaries and potential connection points may change over time and a cost-benefit analysis for an extension of service to the Knecht Subdivision might result in a different conclusion at some point in the future.

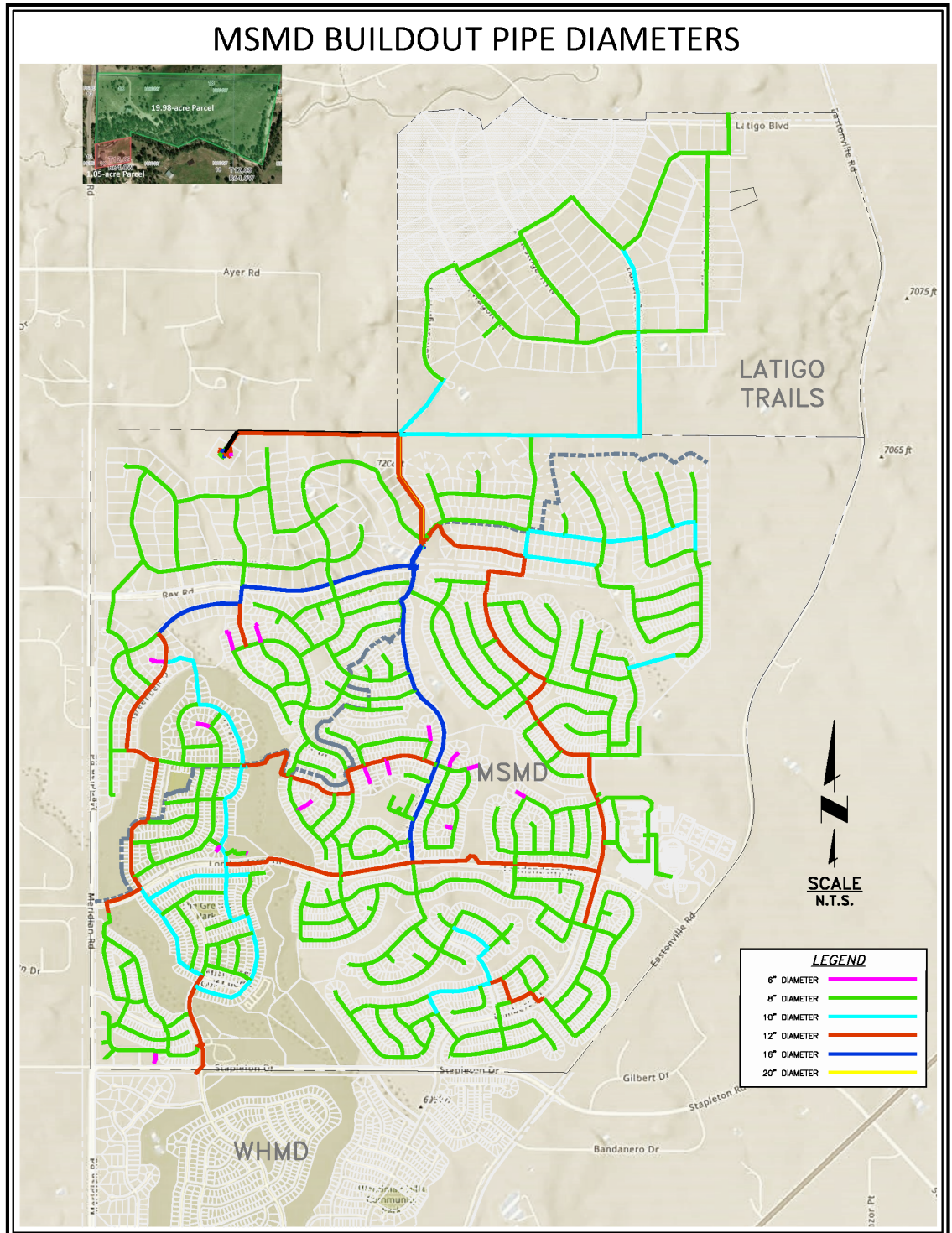


Figure 6-4-1 Meridian Service Metropolitan District Water Distribution System Master Plan



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7.0 CONCLUSION

The decreed water rights and replacement plan in place for the proposed subdivision are adequate to meet the needs of the five (5) lots proposed for the subdivision on a 300-year basis. Sufficient water quantity, quality, and dependability have been documented. The installation of household reverse osmosis systems is recommended to address slightly elevated radionuclides and manganese in the source water.



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8.0 REFERENCES

El Paso County. 2023. *El Paso County Land Development Code*.

Forsgren Associates, Inc. 2019. *El Paso County Water Master Plan*.



APPENDIX A

LAND USE EXHIBIT





APPENDIX B

WATER SUPPLY INFORMATION SUMMARY FORM



FORM NO.
GWS-76
05/2011

WATER SUPPLY INFORMATION SUMMARY
STATE OF COLORADO, OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 821, Denver, CO 80203
Main (303) 866-3581 dwr.colorado.gov

Section 30-28-133,(d), C.R.S. requires that the applicant submit to the County, "Adequate evidence that a water supply that is sufficient in terms of quantity, quality, and dependability will be available to ensure an adequate supply of water."

1. NAME OF DEVELOPMENT AS PROPOSED:

2. LAND USE ACTION:

3. NAME OF EXISTING PARCEL AS RECORDED:

SUBDIVISION: _____, FILING (UNIT) _____, BLOCK _____, LOT _____

4. TOTAL ACREAGE: _____ 5. NUMBER OF LOTS PROPOSED _____ PLAT MAP ENCLOSED? YES or NO

6. PARCEL HISTORY – Please attach copies of deeds, plats, or other evidence or documentation.

A. Was parcel recorded with county prior to June 1, 1972? YES or NO

B. Has the parcel ever been part of a division of land action since June 1, 1972? YES or NO

If yes, describe the previous action:

7. LOCATION OF PARCEL – Include a map delineating the project area and tie to a section corner.

_____ 1/4 of the _____ 1/4, Section _____, Township _____ N or S, Range _____ E or W

Principal Meridian (choose only one): Sixth New Mexico Ute Costilla

Optional GPS Location: GPS Unit must use the following settings: Format must be **UTM**, Units must be **meters**, Datum must be **NAD83**, Unit must be set to **true N**, Zone 12 or Zone 13 Easting: _____ Northing: _____

8. PLAT – Location of all wells on property must be plotted and permit numbers provided.

Surveyor's Plat: YES or NO If not, scaled hand drawn sketch: YES or NO

9. ESTIMATED WATER REQUIREMENTS

10. WATER SUPPLY SOURCE

USE	WATER REQUIREMENTS		NEW WELLS -	
	Gallons per Day	Acre-Feet per Year	<input type="checkbox"/> EXISTING WELL	<input type="checkbox"/> DEVELOPED SPRING
HOUSEHOLD USE # _____ of units	_____	_____	WELL PERMIT NUMBERS _____	
COMMERCIAL USE # _____ of S. F	_____	_____	_____	
IRRIGATION # _____ of acres	_____	_____	_____	
STOCK WATERING # _____ of head	_____	_____	<input type="checkbox"/> MUNICIPAL <input type="checkbox"/> ASSOCIATION <input type="checkbox"/> COMPANY <input type="checkbox"/> DISTRICT NAME _____ LETTER OF COMMITMENT FOR SERVICE <input type="checkbox"/> YES or <input type="checkbox"/> NO	
OTHER: _____	_____	_____	PROPOSED AQUIFERS – (CHECK ONE) <input type="checkbox"/> ALLUVIAL <input type="checkbox"/> UPPER ARAPAHOE <input type="checkbox"/> UPPER DAWSON <input type="checkbox"/> LOWER ARAPAHOE <input type="checkbox"/> LOWER DAWSON <input type="checkbox"/> LARAMIE FOX HILLS <input type="checkbox"/> DENVER <input type="checkbox"/> DAKOTA <input type="checkbox"/> OTHER: _____	
TOTAL	_____	_____	WATER COURT DECREE CASE NUMBERS: _____ _____ _____	

11. WAS AN ENGINEER'S WATER SUPPLY REPORT DEVELOPED? YES or NO IF YES, PLEASE FORWARD WITH THIS FORM. (This may be required before our review is completed.)

12. TYPE OF SEWAGE DISPOSAL SYSTEM

- SEPTIC TANK/LEACH FIELD
- LAGOON
- ENGINEERED SYSTEM (Attach a copy of engineering design.)
- CENTRAL SYSTEM
DISTRICT NAME: _____
- VAULT
LOCATION SEWAGE HAULED TO: _____
- OTHER:



APPENDIX C

DETERMINATIONS AND REPLACEMENT PLAN



**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR A DETERMINATION OF A RIGHT TO AN ALLOCATION OF GROUNDWATER IN THE UPPER BLACK SQUIRREL CREEK DESIGNATED GROUNDWATER BASIN UNDERLYING NEW LANDS AND A CHANGE IN PLACE OF USE AND A CHANGE IN ALLOWED LOCATION OF POINTS OF DIVERSION FOR THE WATER ALLOCATED IN DETERMINATION OF WATER RIGHT NO. 3557-BD

DETERMINATION NO.: 4733-BD

AMENDMENT TO DETERMINATION NO.: 3557-BD

AQUIFER: Dawson

APPLICANT: Jon Knecht

FINDINGS

In compliance with section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Jon Knecht (Applicant) submitted an application to the Colorado Ground Water Commission (Commission) for a determination of a right to an allocation of designated groundwater from the Dawson Aquifer and in compliance with section 37-90-111(1)(g), C.R.S., applications for a change in place of use and a change in allowed location of points of diversion for the water allocated in Determination of Water Right No. 3557-BD. Based upon information provided by the Applicant and the records of the Division of Water Resources, the Commission finds as follows.

1. By application submitted on April 8, 2024 the Applicant has applied for a change in place of use and a change in allowed location of points of diversion for the water allocated in Determination of Water Right no. 3557-BD. These requested changes are further described below.
2. Pursuant to section 37-90-107(7) in a Findings and Order dated July 24, 2018, the Commission issued Determination of Water Right no. 3557-BD, which determined a right to an allocation of designated groundwater from the Dawson Aquifer (Aquifer) underlying 19.98 acres, generally described as part of the N 1/2 of the NW 1/4 of Section 18, Township 12 South, Range 64 West of the 6th P.M., in El Paso County (3557-BD Overlying Land).
 - a. The allowed average annual amount of groundwater allocated from beneath the 3557-BD Overlying Land is 11.3 acre-feet. The resulting total amount of groundwater allocated based on a 100-year aquifer life is 1,130 acre-feet (3557-BD Underlying Groundwater).

Determination No. 4733-BD

Page 2

Aquifer: Dawson

Applicant: Jon Knecht

- b. The allowed types of beneficial uses and allowed place of use of the groundwater are domestic, irrigation, livestock watering, and replacement on the 3557-BD Overlying Land.
 - c. The allowed location for points of diversion is the 3557-BD Overlying Land.
 - d. In accordance with Rule 5.3.6 of the Designated Basin Rules, it has been determined that withdrawal of ground water from the Aquifer underlying the 3557-BD Overlying Land will, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and, therefore, the Underlying Ground Water is considered to be not-nontributary ground water. Withdrawal of water from the Aquifer underlying the claimed land area would impact the alluvial aquifer(s) of Black Squirrel Creek or its tributaries, which has been determined to be over-appropriated. Commission approval of a replacement plan pursuant to Section 37-90-107.5, C.R.S., and Rule 5.6 of the Designated Basin Rules, providing for the actual depletion of the alluvial aquifer and adequate to prevent any material injury to existing water rights, is required prior to approval of well permits for wells to be located on this land area to withdraw the Underlying Ground Water from the Aquifer.
3. By application submitted on April 8, 2024 the Applicant has also applied for a new determination of a right to an allocation of designated groundwater from the Aquifer.
4. The Applicant requests a determination of right to an allocation of designated groundwater (Determination) in the Dawson aquifer (Aquifer) underlying 1.05 acres, generally described as a tract in the NW1/4 of the NW1/4 of Section 18, Township 12 South, Range 64 West, of the 6th P.M., in El Paso County (New Overlying Land). According to a Nontributary Groundwater Landownership Statement dated April 4, 2024, attached hereto as Exhibit A, the Applicant owns the 1.05 acres of land, which are further described in said Ownership Statement, and claims control of the right to the groundwater in the Aquifer underlying the land.
5. The New Overlying Land is located within the boundaries of the Upper Black Squirrel Creek Designated Groundwater Basin and Upper Black Squirrel Creek Ground Water Management District. The Commission has jurisdiction over the designated groundwater that is the subject of this Determination.
6. The Commission's Staff has evaluated the application relying on the claims to control of the groundwater in the Aquifer underlying the New Overlying Land made by the Applicant.

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Aquifer: Dawson

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7. The Applicant intends to apply the groundwater in the Aquifer underlying the New Overlying Land to the following beneficial uses: domestic, irrigation, livestock watering, and replacement. The Applicant's proposed place of use of the groundwater in the Aquifer underlying the New Overlying Land is the above described 1.05 acres of New Overlying Land and the 19.98 acres of 3557-BD Overlying Land described above (Combined Overlying Land), as shown on Exhibit B.
8. Pursuant to section 37-90-107(7)(a), and in accordance with the Designated Basin Rules, the Commission shall allocate the groundwater in the Aquifer underlying the New Overlying Land on the basis of the ownership of the New Overlying Land.
9. The amount of water in storage in the Aquifer underlying the 1.05 acres of New Overlying Land claimed by the Applicant is 62.0 acre-feet. This determination was based on the following as specified in the Designated Basin Rules.
 - a. The average specific yield of those saturated aquifer materials containing sufficient water that can be drained by gravity and placed to beneficial use is 20 percent.
 - b. The average thickness of those saturated aquifer materials containing sufficient water that can be drained by gravity and placed to beneficial use is 295 feet.
10. A review of the records in the Office of the State Engineer has disclosed that a well operating pursuant to section 37-90-105, C.R.S., (i.e. a small-capacity well), permit no. 77690, is located on the New Overlying Land and is permitted to withdraw 1.5 acre-feet per year of groundwater from the Aquifer from beneath the New Overlying Land. The applicant has indicated that permit no. 77690 will be canceled and the well re-permitted to operate pursuant to this Determination. The amount of water considered to have been historically withdrawn from the aquifer by this well is 73.5 acre-feet. In applying Rule 5.3.2.5 of the Designated Basin Rules to computing the amount of water available for allocation in this Determination, the amount of groundwater in the Aquifer underlying the New Overlying Land available for allocation in this Determination is reduced by 73.5 acre-feet to 0 acre-feet. Except for that well, review of the records in the Office of the State Engineer finds no other previous allocations or permitted withdrawals from the Aquifer underlying the Overlying Land.
11. Pursuant to section 37-90-107(7)(c)(III), an approved determination of a right to an allocation shall be considered a final determination of the amount of groundwater so determined; except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes.

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Aquifer: Dawson
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12. The Applicant is seeking to change the allowed place of use of the 3557-BD Underlying Groundwater from the 3557-BD Overlying Land to the Combined Overlying Land.
13. The Applicant is seeking a change in allowed location of points of diversion for the 3557-BD Underlying Groundwater from the 3557-BD Overlying Land, to any location on the Combined Overlying Land.
14. The Applicant's request for a change to Determination of Water Right no. 3557-BD essentially results in removing the 3557-BD Underlying Ground Water from the Determination, and subsuming such underlying groundwater along with the 3557-BD Overlying Land into a single new determination of water right containing the 3557-BD Underlying Groundwater and New Underlying Groundwater. The existing allocation for Determination nos. 3557-BD may be subsumed into a single new determination of water right so long as, pursuant to section 37-90-107(7)(c)(III), C.R.S., the amounts of 3557-BD Underlying Groundwater allocated are final amounts of groundwater so determined from beneath the 3557-BD Overlying Land; except that the Commission shall retain jurisdiction for subsequent adjustment of such amounts to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes.
15. In order to ensure the amounts of water withdrawn from beneath each of the 3557-BD Overlying Land and New Overlying Land do not exceed each individual allocation, all water diverted by any well on the Combined Overlying Land must be assigned to an individual allocation as it is withdrawn (i.e. 3557-BD Underlying Groundwater or New Underlying Groundwater).
16. Pursuant to section 37-90-107(7)(d), the Commission has authority to issue well permits pursuant to subsection 107(7) (i.e. permits for large capacity wells) for the withdrawal of designated groundwater from the Aquifer. Pursuant to section 37-90-107(7)(a) the Commission shall adopt the necessary rules to carry out the provisions of subsection (7). Pursuant to section 37-90-111(h), C.R.S., the Commission is empowered to adopt rules necessary to carry out the provisions of Article 90 of Title 37. In accordance with that authority, the Commission has adopted the Rules and Regulations for the Management and Control of Designated Ground Water (2 CCR 410-1) ("Designated Basin Rules", or "Rules").
17. Large capacity well permits issued pursuant to section 37-90-107(7) are subject to the following provisions of statute and the Designated Basin Rules.
 - a. Pursuant to section 37-90-107(7)(a) well permits issued pursuant to subsection 107(7) shall allow withdrawals on the basis of an aquifer life of one hundred years. The 0 acre-feet of water in the Aquifer underlying the New Overlying Land and 1,130 acre-feet of water in the Aquifer underlying the 3557-BD Overlying land available for allocation in this Determination, if

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Aquifer: Dawson
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permitted for withdrawal by large capacity wells on the basis of an aquifer life of one hundred years, would result in an allowed average annual amount of withdrawal of 0 acre-feet per year for the New Overlying Land and 11.3 acre-feet for the 3557-BD Overlying Land.

- b. Any amounts of groundwater in the Aquifer allocated in this Determination that are permitted for withdrawal pursuant to section 37-90-105, by small capacity well permits issued after the issuance of this Determination reduce the amount of water, and the allowed average annual amount of withdrawal, that may be withdrawn by wells permitted pursuant to section 37-90-107(7).
 - c. In accordance with Rule 5.3.6 of the Designated Basin Rules, it has been determined that withdrawal of groundwater from the Aquifer underlying the New Overlying Land will, within one hundred years, deplete the flow of a natural stream or an alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and, therefore, the groundwater in the Aquifer underlying the New Overlying Land is considered to be not-nontributary groundwater as defined in Rule 4.2.23 of the Designated Basin Rules. Withdrawal of water from the Aquifer underlying the New Overlying Land would impact the alluvial aquifer of the Upper Black Squirrel Creek Designated Groundwater Basin, which has been determined to be over-appropriated. Commission approval of a replacement plan pursuant to section 37-90-107.5, C.R.S., and Rule 5.6 of the Designated Basin Rules, that provides for the replacement of the actual depletion to the alluvial aquifer and is adequate to prevent any material injury to existing water rights of other appropriators, is required prior to approval of well permits for wells to be located on this land area to withdraw the groundwater in the Aquifer underlying the New Overlying Land. Pursuant to the Rules the replacement plan shall provide for the depletion of the alluvial water for the first 100 years due to all previous pumping, and if pumping continues beyond 100 years shall replace actual impact until pumping ceases, assuming water table conditions in the Aquifer.
18. Pursuant to section 37-90-105(1), the State Engineer has the authority to approve small capacity well permits. While water withdrawn from the Aquifer from beneath the Combined Overlying Land by small capacity wells may consist of the groundwater allocated herein, the Commission recognizes that in approving small capacity permits the State Engineer is not bound by the terms and conditions of this Determination, and may approve small capacity permits based on standards and with such conditions as the State Engineer considers appropriate.
19. The ability of wells permitted to withdraw the authorized amount of water from this nonrenewable Aquifer may be less than the one hundred years upon which the

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amount of water in the Aquifer is allocated, due to anticipated water level declines.

20. On September 6, 2024, in accordance with Rule 9.1 of the Designated Basin Rules, written recommendations concerning this application were requested from the Upper Black Squirrel Creek Ground Water Management District. No written recommendations from the District were received.
21. In accordance with sections 37-90-107(7)(c)(II) and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on September 12, 2024 and September 19, 2024. No objections to the application were received within the time limit set by statute.

ORDER

In accordance with section 37-90-107(7) and the Designated Basin Rules, the Commission hereby determines a right to an allocation of designated groundwater in the Dawson Aquifer underlying 1.05 acres of land, generally described as a tract in the NW1/4 of the NW1/4 of Section 18, Township 12 South, Range 64 West, of the 6th P.M., further described in Exhibit A; and in compliance with section 37-90-111(1)(g), C.R.S., orders the request for a change in place of use and a change in allowed location of points of diversion for the water allocated in Determination of Water Right No. 3557-BD, is approved subject to the following conditions.

22. The amount (i.e. volume) of water in the Aquifer underlying the 21.03 acres of Combined Overlying Land allocated herein is 1,130 acre-feet (Underlying Groundwater) consisting of:
 - a. The amount determined in Determination no. 3557-BD to be available for allocation underlying the 3557-BD Overlying Land being is 1,130 acre-feet; and
 - b. The amount determined in the New Determination to be available for allocation underlying the New Overlying Land being 0 acre-feet.
23. The amount (i.e. volume) of Underlying Groundwater allocated herein shall be considered final, except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes, if such information indicates that the initial estimate of the amount of Underlying Groundwater in the Aquifer was incorrect.
24. All water diverted by any well on the Combined Overlying Land must be assigned to an individual allocation, either the 3557-BD Underlying Groundwater or the New Underlying Groundwater, as it is withdrawn.

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Aquifer: Dawson
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25. The allowed place of use of the Underlying Groundwater is limited to the above described 21.03 acres of Combined Overlying Land.
26. The allowed locations of points of diversion (e.g. the location of the wells) shall be the above described 21.03 acres of Combined Overlying Land.
27. The use of the Underlying Groundwater shall be limited to domestic, irrigation, livestock watering, and replacement.
28. Approval of this Determination meets the requirements of section 37-90-107(7)(d)(II), that requires a determination of groundwater to be withdrawn by a well be made prior to the granting of a well permit pursuant to section 37-90-107(7).
29. Well permits issued pursuant to section 37-90-107(7), (i.e. large capacity wells) and this Determination are subject to the following conditions.
 - a. The total amount of Underlying Groundwater that may be withdrawn from the Aquifer by all large capacity wells permitted pursuant to this Determination may not exceed a volume 1,130 acre-feet, less any amount of the Underlying Groundwater allocated herein permitted to be withdrawn by small capacity wells issued permits pursuant to section 37-90-105 after the issuance of this Determination. The amounts of water permitted to be withdrawn by such small capacity wells shall be considered to be one-hundred times the annual withdrawals permitted to be withdrawn by those wells.
 - i. 3557-BD Underlying Groundwater - 1,130 acre-feet; and
 - ii. New Underlying Groundwater - 0 acre-feet.
 - b. The allowed average annual amount of withdrawal by any large capacity well (or well field) permitted to withdraw the allocated water shall be equal to the volume of water permitted to be withdrawn by that well (or well field) divided by one-hundred years.
 - c. The allowed maximum annual amount of withdrawal by any large capacity well (or well field) permitted to withdraw the allocated water may exceed the allowed average annual amount of withdrawal allowed by the well permit(s) as long as the total volume of water withdrawn by such well(s) does not exceed the product of the number of years since the date(s) of issuance of the well permit(s) times the allowed average annual amount of withdrawal allowed by the well permit(s).
 - d. The Applicant may pump the allowed average annual amount of withdrawal and the allowed maximum annual amount of withdrawal from one or more

Determination No. 4733-BD
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wells of a well field in any combination, so long as the total combined withdrawal of the wells does not exceed the amounts described in this Order.

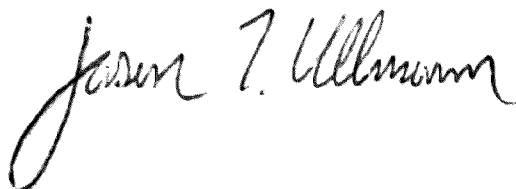
- e. Commission approval of a replacement plan, that provides for the replacement of the actual depletion to the alluvial aquifer and is adequate to prevent any material injury to existing water rights of other appropriators in the alluvial aquifer, is required prior to approval of well permits that allow the withdrawal of the Underlying Groundwater. The replacement plan shall provide for the depletion of the alluvial water for the first 100 years due to all previous pumping, and if pumping continues beyond 100 years shall replace actual impact until pumping ceases, assuming water table conditions in the Aquifer.
- f. The Underlying Groundwater that is the subject of this Determination may be reused and successively used to extinction to the extent dominion and control over the water is maintained and its volume can be distinguished from the volume of any stream system into which it is introduced to the satisfaction of the Commission. The Underlying Groundwater is located within the Upper Black Squirrel Creek Ground Water Management District where local District rules apply which may further limit the withdrawal and use of the subject designated groundwater.
- g. The wells must be located on the above described 21.03 acres of Combined Overlying Land.
- h. No well shall be located within 600 feet of any existing large-capacity well in the same Aquifer unless a Waiver of Claim of Injury is obtained from the owner of the existing well or unless the Commission, after a hearing, finds that circumstances in a particular instance warrant that a well may be permitted without regard to this limitation.
- i. The wells must be constructed to withdraw water from only the Dawson Aquifer.
- j. The entire depth of each well must be geophysically logged prior to installing the casing in the same manner as set forth in Rule 9 of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7.
- k. A totalizing flow meter or other Commission approved measuring device shall be installed on each well and maintained in good working order by the well owner. Annual diversion records shall be collected and permanently maintained by the well owner and submitted to the Commission and the Upper Black Squirrel Creek Ground Water Management District upon request.

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Aquifer: Dawson
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- l. The well shall be marked in a conspicuous place with this determination number, the well permit number, and the name of the Aquifer. The well owner shall take necessary means and precautions to preserve these markings.
27. Existing well permit no. 77690 must be canceled and a new permit issued for that well to operate pursuant to this Determination.
28. Determinations of Water Right no. 3557-BD is hereby subsumed into this Determination and, from the date of this approval forward, the 1,130 acre-feet of 3557-BD Underlying Groundwater shall be used only in accordance with this Determination, subject to subsequent order of the Commission modifying this Determination.
29. Prior to withdrawing the Underlying Groundwater from any existing wells, a well permit allowing such withdrawal must first be obtained.
30. A copy of this Findings and Order shall be recorded by the Applicant in the public records of the county in which the 21.03 acres of Combined Overlying Land is located so that a title examination of that Combined Overlying Land, or any part thereof, shall reveal the existence of this Determination.
31. The right to an allocation of designated groundwater determined herein is a vested property right with specific ownership. Some or all of the water right may be transferred independent of the land under which the right originated. Any action taken that is intended to convey, transfer, and/or sell the subject water right shall explicitly identify this Determination number, the specific Aquifer, and the total amount (i.e. volume) of the right that is being conveyed.

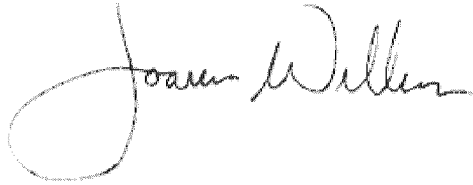
Dated this 21st day of November, 2024.



Jason T. Ullmann, P.E.
Executive Director
Colorado Ground Water Commission

Determination No. 4733-BD
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A handwritten signature in black ink, appearing to read "Joanna Williams". The signature is written in a cursive style with a large, looping initial "J".

By: Joanna Williams, P.E.
Chief of Water Supply, Designated Basins

F&O4733-BD.docx
Prepared by: idc

Exhibit A
4733-BD
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Form no. **DIVISION OF WATER RESOURCES**
GWS-1 **DEPARTMENT OF NATURAL RESOURCES**
(7/2023) **1313 Sherman St, Room 821, Denver, CO 80203**
(303) 866-3581, www.colorado.gov/water, dwrpermitsonline@state.co.us

NONTRIBUTARY GROUNDWATER LANDOWNERSHIP STATEMENT

This form is to be submitted with applications for the following, when the applicant is the owner of the overlying land.

- 1) A well permit to withdraw groundwater from the Dawson, Denver, Arapahoe or Laramie-Fox Hills aquifers, or other aquifer the applicant claims contains nontributary groundwater, outside of a Designated Groundwater Basin subject to section 37-90-137(4), C.R.S., except when the right to withdraw the groundwater has been determined by a valid decree; OR
- 2) A determination of water right in the Dawson, Denver, Arapahoe or Laramie-Fox Hills aquifers, or a well permit to withdraw groundwater from those aquifers that are subject to Designated Basin Rule 5.4, within a Designated Groundwater Basin.

NOTE: Form submittal instructions can be found on our website Colorado.gov/water. See instructions on the reverse of this form.
Type or print in black or blue ink

1. APPLICANT INFORMATION			
Name of Applicant Jon Knecht			
Mailing Address	City	State	Zip Code
12425 N. Meridian Road	Elbert	Colorado	80106
Telephone Number (include area code)	Email		
719-471-1212	rwf@cowaterlaw.com		
2. AQUIFER Dawson			
3. CLAIM OF OWNERSHIP – I hereby claim that I am the owner of the following described property, as evidenced by the attached copy of a deed recorded in the county in which the property is located. Number of acres: <u>1.05</u> in the county of: <u>El Paso</u> described as follows (type the legal description below or type "see attached" and attach a legal description). TRACT IN NW4 OF SEC 18-12-64 AS FOLS: COM AT NW COR OF SD SEC 18, TH SLY ON W SEC LN 580.0 FT M/L TO S LN OF BLACK SQUIRREL CREEK FOR POB, TH CONT SLY ON W SEC LN 207.0 FT, ANG L 100< NELY 289.4 FT, NLY PARA WITH W SEC LN TO S LN OF SD CREEK, TH SWLY ALG S LN OF SD CREEK TO POB - I further claim that the right to withdraw the groundwater in the aquifer underlying the above described property has not been reserved by another, nor has consent been given to another for the right to its withdrawal.			
4. THE APPLICANT MUST PROVIDE – a Verification of Notice of Application (form no. GWS-43) (see instructions for exceptions).			
5. SIGNATURE – Sign or enter name(s) of applicant(s) or authorized agent. The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104(13)(a). I have read the statements herein, know the contents thereof, and state that they are true to my knowledge			
Signature			Date: <u>04/04/2024</u>
Print name and title:	<u>Ryan W. Farr, Attorney for Applicant</u>		

**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR REPLACEMENT PLAN TO ALLOW THE
WITHDRAWAL OF GROUNDWATER FROM THE DAWSON AQUIFER IN THE UPPER BLACK
SQUIRREL CREEK DESIGNATED GROUNDWATER BASIN.

REPLACEMENT PLAN NO. 4733-RP

FOR DETERMINATION OF WATER RIGHT NO. 4733-BD

AQUIFER: DAWSON

APPLICANT: JON KNECHT

In compliance with section 37-90-107.5, C.R.S. and the Designated Basin Rules, 2 CCR 410-1 (Rules or Rule), Jon Knecht (Applicant) submitted an application for a replacement plan to allow the withdrawal of groundwater from the Dawson Aquifer that has been allocated by Determination of Water Right No. 4733-BD.

FINDINGS

1. Pursuant to section 37-90-107(7), C.R.S., in a Findings and Order dated July 24, 2018, the Ground Water Commission (Commission) approved a Determination of a Right to an Allocation of Groundwater, No. 3557-BD, from the Dawson Aquifer (Aquifer), summarized as follows.
 - a. The determination quantified an amount of water from beneath 19.98 acres of overlying land generally described as part of the N1/2 of the NW1/4 of Section 18, Township 12 South, Range 64 West, of the 6th P.M., in El Paso County (3557-BD Overlying Land).
 - b. The amount of water in the aquifer that was allocated was 1,130 acre-feet, and the allowed average annual amount of groundwater to be withdrawn from the aquifer was limited to 11.3 acre-feet per year (subject to adjustment by the Commission to conform to actual local aquifer characteristics)(3557-BD Underlying Groundwater).
 - c. The use of groundwater is limited to the following beneficial uses: domestic, irrigation, livestock watering, and replacement.
 - d. Withdrawal of the subject groundwater will, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal, the groundwater is considered to be not-nontributary, and

Replacement Plan No. 4733-RP

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Aquifer: Dawson

Applicant: Jon Knecht

Commission approval of a replacement plan providing for actual depletion of affected alluvial aquifers and adequate to prevent any material injury to existing water rights in such alluvial aquifers is required prior to approval of well permits for wells to withdraw the subject groundwater.

2. Pursuant to section 37-90-107(7), C.R.S., in a Findings and Order dated November 21, 2024, the Ground Water Commission (Commission) approved a Determination of a Right to an Allocation of Groundwater from the Dawson Aquifer (Aquifer) and in compliance with section 37-90-111(1)(g), C.R.S., approved a change in place of use and a change in allowed location of points of diversion for the water allocated in Determination of Water Right No. 3557-BD, summarized as follows. The approvals were granted under Determination of Water Right no. 4733-BD.
 - a. The determination quantified an amount of water from beneath 1.05 acres, generally described as a tract in the NW1/4 of the NW1/4 of Section 18, Township 12 South, Range 64 West, of the 6th P.M., in El Paso County (New Overlying Land).
 - b. Determinations of Water Right no. 3557-BD was subsumed into Determination 4733-BD and, from the date of the approval forward, the 1,130 acre-feet of 3557-BD Underlying Groundwater shall be used only in accordance with Determination no. 4733-BD, subject to subsequent order of the Commission modifying this Determination.
 - c. The amount of water in the aquifer that was allocated was 1,130 acre-feet, and the allowed average annual amount of groundwater to be withdrawn from the aquifer was limited to 11.3 acre-feet per year (subject to adjustment by the Commission to conform to actual local aquifer characteristics), as follows:
 - i. 3557-BD Underlying Groundwater - 1,130 acre-feet; and
 - ii. New Underlying Groundwater - 0 acre-feet.
 - d. The use of groundwater is limited to the following beneficial uses: domestic, irrigation, livestock watering, and replacement.
 - e. Withdrawal of the subject groundwater will, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal, the groundwater is considered to be not-nontributary, and Commission approval of a replacement plan providing for actual depletion of affected alluvial aquifers and adequate to prevent any material injury to existing water rights in such alluvial aquifers is

Replacement Plan No. 4733-RP
Aquifer: Dawson
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required prior to approval of well permits for wells to withdraw the subject groundwater.

3. Withdrawal of the subject groundwater would deplete the alluvial aquifer of the Kiowa-Bijou Designated Groundwater Basin, the alluvial aquifer of the Upper Big Sandy Designated Groundwater Basin and the alluvial aquifer of the Upper Black Squirrel Creek Designated Groundwater Basin, all of which, according to Rules 5.2.4.2, 5.2.7.2 and 5.2.6.2, respectively, have been determined to be over appropriated. Such depletion would unreasonably impair existing large capacity alluvial rights withdrawing water from those alluvial aquifers.
4. Pursuant to Rule 5.6.1.A this plan must be adequate to prevent any material injury to water rights of other appropriators, which for purposes of this plan means large capacity wells withdrawing water from the alluvial aquifer of the Kiowa-Bijou Designated Groundwater Basin, the alluvial aquifer of the Upper Big Sandy Designated Groundwater Basin and the alluvial aquifer of the Upper Black Squirrel Creek Designated Groundwater Basin.
5. Pursuant to Rule 5.3.6.2(C) the amount of replacement water shall provide for the depletion of alluvial water for the first 100 years due to all previous pumping and if pumping continues beyond 100 years, shall replace actual impact until pumping ceases.
6. The application for amendment of the replacement plan was received by the Commission on April 8, 2024.
7. The Applicant proposes to divert 2.5 acre-feet annually from the Dawson Aquifer for a period of 300 years. The Dawson aquifer water will be withdrawn through 5 wells to be located on 5 residential lots. Each Dawson Aquifer well is proposed to divert 0.5 acre-feet of water annually for use in 1 single family residence, irrigation, and watering of livestock. The land on which the wells will be located is 21.03 acres of land including the 1.05 acres of New Overlying Land and the 19.98 acres of 3557-BD Overlying Land (Combined Overlying Land), as shown on Exhibit B.
8. At a continuous withdrawal of 2.5 acre-feet annually for 300 years, depletions to the alluvial aquifer system of the Upper Black Squirrel Creek Designated Groundwater Basin would steadily increase to 0.077 acre-feet per year in the 300th year, which is equal to 3.08% of pumping, as shown in Exhibit A.
9. The Applicant proposes to provide 0.90 acre-feet per year of replacement water to the alluvial aquifer system of the Upper Black Squirrel Creek Designated Groundwater Basin. The proposed source of replacement water is septic and leaching field return flows from the in-house use of the

Replacement Plan No. 4733-RP

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Aquifer: Dawson

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groundwater to be pumped under the plan. The Applicant estimates that return flows from each lot will consist of 90% of the water used for in-house purposes. Assuming a total minimum annual amount for in-house use of 0.20 acre-feet, the return flow would be 0.18 acre-feet annually, and the return flows under the plan will total 0.90 acre-feet per year for all 5 lots at full build out.

10. The subject property is located within the drainage of Black Squirrel Creek, and the return flows will flow to the alluvial aquifer of the Upper Black Squirrel Creek Designated Groundwater Basin. The Applicant proposes to aggregate all replacements to the drainage in which the well or wells will operate, in accordance with Guideline 2007-1.
11. Pursuant to Rule 5.6.1.B this plan must be adequate to prevent unreasonable impairment of water quality. Pursuant to Rule 5.6.1.B.1.b, if the replacement source water is from an onsite wastewater treatment system permitted by a local health agency and the applicant demonstrates the source is in compliance with that permit there shall be a rebuttable presumption of no unreasonable impairment of water quality.
12. Pursuant to Rule 5.6.1.C this plan, including the proposed uses of the water withdrawn pursuant to the plan, must not be speculative, and must be technically and financially feasible and within the Applicant's ability to complete. The plan, including the proposed uses of the water withdrawn pursuant to the plan, is not speculative. The plan appears technically and financially feasible and within the Applicant's ability to complete.
13. Pursuant to Rule 5.6.1.D this plan must be able to be operated and administered on an ongoing and reliable basis. The plan appears to be able to be operated and administered on an ongoing and reliable basis.
14. Pursuant to Rule 5.6.1.F replacement source water must be physically and legally available in time, place and amount to prevent material injury. As determined in Determination of Water Right No. 4733-BD water is currently available in the amounts and for the number of years proposed to be diverted.
15. Pursuant to Rule 5.6.1.G the replacement source water must be legally available for use. Records in this office indicate that the Applicant controls the water right to be used as the source of replacement water, consisting of Determination of Water Right No. 4733-BD, and such water is legally available for use pursuant to this plan.
16. In accordance with Rule 5.6.4 the application was referred to the Upper Black Squirrel Creek Ground Water Management District on September 6, 2024. No written recommendations from the District were received.

Replacement Plan No. 4733-RP
Aquifer: Dawson
Applicant: Jon Knecht

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17. In accordance with sections 37-90-107.5 and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on September 12, 2024 and September 19, 2024. No objections to the application were received within the time limit set by statute.
18. According to Rule 5.6.1:
 - a. The Applicant has the burden of proving the adequacy of the plan in all respects.
 - b. If the applicant meets its burden of proof, the Commission shall grant approval of the plan which shall include any terms and conditions established by the Commission.
19. The Commission Staff, having evaluated the application pursuant to section 37-90-107.5 and the requirements of Rule 5.3.6.2(C) and Rule 5.6, finds that the requirements have been met, and the plan may be approved to allow diversions from the Dawson Aquifer if operated subject to the conditions given below.

ORDER

In accordance with section 37-90-107.5, and the Designated Basin Rules, the Colorado Ground Water Commission orders that the application for amendment of the replacement plan to allow the withdrawal of groundwater from the Dawson Aquifer underlying 21.03 acres that are the subject of Determination of Water Right no. 4733-BD is approved subject to the following conditions:

20. Approval of this replacement plan hereby cancels replacement plan no. 3557-RP approved on June 12, 2018 and replacement plan no. 3557-RP, Amendment 1 approved on August 30, 2022.
21. The Dawson Aquifer water will be withdrawn through 5 wells to be located on 5 residential lots. The allowed use of groundwater for each well under this plan is use in 1 single family residence, irrigation, and livestock watering. The land on which the wells will be located is the 21.03 acres of Combined Overlying Land as shown on Exhibit B.
22. The allowed annual amount of groundwater to be withdrawn from the Aquifer by all wells operating under this plan shall not exceed 2.5 acre-feet. The allowed annual amount of water to be withdrawn from each on-lot well shall not exceed 0.5 acre-feet.
23. A totalizing flow meter shall be installed on each well. The well owner shall maintain the meter in good working order.

Replacement Plan No. 4733-RP

Page 6

Aquifer: Dawson

Applicant: Jon Knecht

24. Permanent records of all withdrawals of groundwater from each well shall be recorded at least annually by the well owners, permanently maintained, and provided to the Commission and the Upper Black Squirrel Creek Ground Water Management District on forms acceptable to the Commission, on an annual basis for the previous calendar year, by February 15th of the following year, or more often upon request.
25. Pumping under this plan is limited to a period of 300 years. The year of first use of this replacement plan shall be the calendar year of construction of a well permitted pursuant to this plan or permitting of an existing well pursuant to the plan.
26. Return flows from in-house use of groundwater shall occur through individual on-lot non-evaporative septic systems located within the 21.03 acres of Combined Overlying Land. The septic systems must be constructed and operated in compliance with a permit issued by a local health agency.
27. Replacement of depletions must be provided annually in the acre-feet amounts shown in Exhibit A. Annual replacement requirements may be computed by pro-rating between the values given on Exhibit A, or for simplicity may be taken as the amount shown in the next succeeding 5 year increment.
28. The Applicant or their successor(s) are responsible for ensuring that replacement water is provided to the alluvial aquifer as required by this plan. The annual replacement requirement and the annual amount of replacement water provided shall be calculated and reported on a form acceptable to the Commission. The annual amount of replacement water provided must be no less than the annual replacement requirement on a yearly basis. No credit shall be claimed by the Applicant for an oversupply of replacement water provided to the alluvium during previous years.
29. The Applicant must provide the required annual amount of replacement water for the first 100 years, or for as long as a well is operated pursuant to this plan, whichever is longer.
30. To assure adequate return flows, at least one well must be serving an occupied single-family dwelling that is generating return flows via a non-evaporative septic system before any irrigation or animal watering is allowed to be served by any of the wells.
31. So long as at least one well continues to pump and supply an occupied dwelling, the plan's required replacement obligations, shown in Exhibit A, will be met. Should all wells cease pumping for in-house use within the first 100 years an amended or alternate replacement plan must be obtained that will

Replacement Plan No. 4733-RP
Aquifer: Dawson
Applicant: Jon Knecht

Page 7

replace actual depletions to the alluvial aquifer so as to prevent any material injury to water rights of other appropriators.

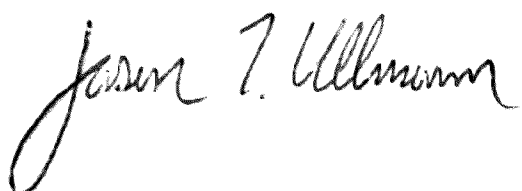
32. The Applicant or their successor(s) must gather and maintain permanent records of all information pertaining to operation of this plan, which shall include, but is not limited to, those items identified below. The Applicant must submit records to the Commission and the Upper Black Squirrel Creek Ground Water Management District on forms acceptable to the Commission, on an annual basis for the previous calendar year, by February 15th of the following year, or more often upon request. The Applicant or their successor(s) must provide combined accounting for all wells operated under this replacement plan on a single accounting form, unless otherwise approved by the Commission.
 - a. Identification of all well permits issued and wells constructed under this plan.
 - b. The amount of water diverted by each well and all wells in total, both annually and cumulatively since operation of the plan began.
 - c. The number of occupied dwellings served by each well.
 - d. The return flows occurring from use of all wells operating under the plan, assuming 0.18 acre-feet per year per occupied single family dwelling (90% of the water used for in-house purposes) enters the alluvial aquifer as replacement water.
 - e. Any other information the Commission deems relevant and necessary to operation, monitoring, accounting, or administration of the plan.
33. The Applicant or their successor(s) are fully responsible for the operation, monitoring, and accounting of the replacement plan. In the event a lot with a well permitted or operating pursuant to this plan is sold, identification of the well that was sold and evidence that the new owner has been notified of their responsibilities under the replacement plan shall accompany that year's accounting.
34. Any covenants adopted for this subdivision should contain a description of the replacement plan, including the limitations on diversions and use of water for each well and lot, the requirement to meter and record all well pumping, and information on how records are to be reported and the plan is to be administered.
35. In the event the permitted well or wells are not operated in accordance with the conditions of this replacement plan, they shall be subject to administration, including orders to cease diverting groundwater.

Replacement Plan No. 4733-RP
Aquifer: Dawson
Applicant: Jon Knecht

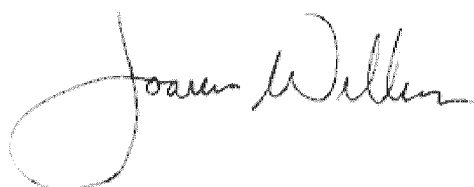
Page 8

36. All terms and conditions of Determination of Water Right No. 4733-BD must be met.
37. Pursuant to Rule 5.6.1.E, a copy of this Findings and Order shall be recorded by the Applicant in the clerk and recorder's records of El Paso County, so that a title examination of the land on which the structures involved in this plan are located reveals the existence of this plan.

Dated this 21st day of November, 2024.



Jason T. Ullmann, P.E.
Executive Director
Colorado Ground Water Commission



By: Joanna Williams, P.E.
Chief of Water Supply, Designated Basins

F&O3557-RP.docx

Prepared by: idc

Exhibit A
Replacement Plan - Determination No.: 3557-BD
Page 1 of 1

Designated Basin Summary Table for Jon Knecht							
Pumping Rate of 2.5 acre-feet per year for 300 Years from the Dawson aquifer							
Section(s): Section 18, 12S, R64W, 6th P.M.							
Year	Pumping (Q) (AF/YR)	Annual Depletion (q) (AF/YR)	Depletion as a % of Pumping (q/Q)	Year	Pumping (Q) (AF/YR)	Annual Depletion (q) (AF/YR)	Depletion as a % of Pumping (q/Q)
5	2.5	0.0000	0.00	155	2.5	0.0178	0.71
10	2.5	0.0000	0.00	160	2.5	0.0193	0.77
15	2.5	0.0000	0.00	165	2.5	0.0209	0.84
20	2.5	0.0000	0.00	170	2.5	0.0225	0.90
25	2.5	0.0001	0.00	175	2.5	0.0242	0.97
30	2.5	0.0001	0.00	180	2.5	0.0260	1.04
35	2.5	0.0002	0.01	185	2.5	0.0278	1.11
40	2.5	0.0003	0.01	190	2.5	0.0296	1.18
45	2.5	0.0004	0.02	195	2.5	0.0315	1.26
50	2.5	0.0006	0.02	200	2.5	0.0334	1.34
55	2.5	0.0008	0.03	205	2.5	0.0353	1.41
60	2.5	0.0010	0.04	210	2.5	0.0373	1.49
65	2.5	0.0013	0.05	215	2.5	0.0393	1.57
70	2.5	0.0017	0.07	220	2.5	0.0414	1.66
75	2.5	0.0021	0.09	225	2.5	0.0435	1.74
80	2.5	0.0026	0.10	230	2.5	0.0456	1.82
85	2.5	0.0031	0.13	235	2.5	0.0477	1.91
90	2.5	0.0037	0.15	240	2.5	0.0499	1.99
95	2.5	0.0044	0.18	245	2.5	0.0521	2.08
100	2.5	0.0052	0.21	250	2.5	0.0542	2.17
105	2.5	0.0060	0.24	255	2.5	0.0565	2.26
110	2.5	0.0069	0.27	260	2.5	0.0587	2.35
115	2.5	0.0078	0.31	265	2.5	0.0609	2.44
120	2.5	0.0088	0.35	270	2.5	0.0632	2.53
125	2.5	0.0099	0.40	275	2.5	0.0655	2.62
130	2.5	0.0111	0.44	280	2.5	0.0678	2.71
135	2.5	0.0123	0.49	285	2.5	0.0700	2.80
140	2.5	0.0136	0.54	290	2.5	0.0723	2.89
145	2.5	0.0149	0.60	295	2.5	0.0746	2.99
150	2.5	0.0163	0.65	300	2.5	0.0769	3.08

Created by idc on May 20, 2024

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

Exhibit B
3557-RP
Page 1 of 3

222136885 11/1/2022 2:18 PM
PGS 2 \$18.00 DF \$90.00
Electronically Recorded Official Records El Paso County CO
Chuck Broerman, Clerk and Recorder
TD1000 Y

WARRANTY DEED

State Doc Fee: \$90.00
Recording Fee: \$18.00

THIS DEED is dated the 31 day of October, 2022, and is made between

Linda Ware (PARCEL A)
Linda G. Ware (PARCEL B)
Mark A. Ware (PARCEL C AND C1)

(whether one, or more than one), the "Grantor" of the County of El Paso and State of Colorado and

Jon Knecht

In Severalty, (whether one, or more than one), the "Grantee", whose legal address is 12375 Meridian Road, Elbert, CO 80106 of the County of El Paso and State of Colorado.

WITNESS, that the Grantor, for and in consideration of the sum of Nine Hundred Thousand Dollars and No Cents (\$900,000.00), the receipt and sufficiency of which is hereby acknowledged, hereby grants, bargains, sells, conveys and confirms unto the Grantee and the Grantee's heirs and assigns forever, all the real property, together with any improvements thereon, located in the County of El Paso and State of Colorado described as follows:

PARCEL A:

That portion of the Northwest quarter of Section 18, in Township 12 South, Range 64 West of the 6th P.M., described as follows:

Beginning at the Northwest corner of said Section 18; thence Southerly on the West line of said Section 18, 787.15 feet; thence angle left 100° Northeasterly 289.40 feet; thence Northerly parallel to the West line of said Section 18, 736.90 feet to intersect the North line of said Section 18; thence Westerly on the North line of said Section 18, 285.00 feet to the point of beginning, County of El Paso, State of Colorado.

PARCEL B:

That portion of the Northwest quarter of Section 18, in Township 12 South, Range 64 West of the 6th P.M., El Paso County, Colorado, more particularly described as follows:

Beginning at the Northeast corner of that tract of land recorded in Book 2364 at Page 289 of the records of El Paso County; thence S89°16'18" E along the Northerly line of said Northwest quarter of Section 18, also being the Southerly line of "Latigo Country Estates Filing No. 1" as recorded in Plat Book H-3 at Page 5 of said records, 1244.19 feet; thence S 12°02'24" W, 757.41 feet; thence N66°21'11" W, 571.16 feet; thence S63°41'21" W, 182.91 feet; thence N73°00'43" W, 417.47 feet to the point on the Easterly line of said tract as recorded in Book 2364 at Page 289; thence N00°02'12" E along said Easterly line, 486.57 feet to the point of beginning, LESS and EXCEPT that portion conveyed by Deed recorded in Book 5140 at Page 635.

PARCEL C:

That portion of the Northwest quarter of Section 18, in Township 12 South, Range 64 West of the 6th P.M., El Paso County, Colorado, more particularly described as follows:

Commencing at the Northwest corner of said Section 18; thence S89°16'18" E, (all bearings used in this description are relative to the North line of the Northwest quarter of said Section 18, which was assumed to be S89°16'18" E) on the North line of the Northwest quarter of said Section, 285.03 feet to a point on the Easterly line of that parcel described in Book 2364 at Page 288 of the records of said County; thence S00°01'14" W on said Easterly line, 60.00 feet to a point on a line being 60.00 feet Southerly of and parallel with said North line of the Northwest quarter of Section 18 and the True Point of Beginning; Thence S89°16'18" E, 156.95 feet; thence S00°01'14" W, 472.56 feet to a point on the Southerly line of that parcel described in Book 3414 at Page 217 of said records; thence Easterly on said Southerly line for the following three (3) courses: (1) thence S73°00'43" E, 253.24 feet; (2) thence N63°41'21" E, 182.84 feet; (3) thence S66°21'11" E, 285.58 feet; thence N00°01'14" E, 242.25 feet; thence n44°16'18" W, 508.06 feet to a point on a line being 30.00 feet Southerly of and parallel with the aforementioned North line of the Northwest quarter of Section 18; thence N89°16'18" W on said parallel line, 469.97 feet to a point on the aforementioned Easterly line of that parcel described in Book 2364 at Page 288; thence S00°01'14" W on said Easterly line, 30.00 feet to the point of beginning.

PARCEL C1:

A perpetual, non-exclusive easement for ingress and egress purposes over the Southerly 30 feet of the Northerly 60 feet of the following parcel of land:

That portion of the Northwest quarter of Section 18, in Township 12 South, Range 64 West of the 6th P.M., described as follows:

Beginning at the Northeast corner of said Section 18; thence Southerly on the West line of said Section 18, 787.15 feet; thence angle left 100 degrees Northeasterly 289.40 feet; thence Northerly parallel to the West line of said Section 18, 736.90 feet to intersect the North line of said Section 18; thence Westerly on the North line of said Section 18, 285.00 feet to the point of beginning, in El Paso County, Colorado.

also known by street address as: 12375 Meridian Road, Elbert, CO 80106

Exhibit B
3557-RP
Page 2 of 3

TOGETHER with all and singular the hereditaments and appurtenances thereto belonging, or in anywise appertaining, the reversions, remainders, rents, issues and profits thereof, and all the estate, right, title, interest, claim and demand whatsoever of the Grantor, either in law or equity, of, in and to the above bargained premises, with the hereditaments and appurtenances;

TO HAVE AND TO HOLD the said premises above bargained and described, with the appurtenances, unto the Grantees, and the Grantees' heirs and assigns forever.

The Grantor, for the Grantor and the Grantor's heirs and assigns, does covenant, grant, bargain, and agree to and with the Grantee, and the Grantee's heirs and assigns: that at the time of the ensealing and delivery of these presents, the Grantor is well seized of the premises above described; has good, sure, perfect, absolute and indefeasible estate of inheritance, in law, and in fee simple; and has good right, full power and lawful authority to grant, bargain, sell and convey the same in manner and form as aforesaid; and that the same are free and clear from all former and other grants, bargains, sales, liens, taxes, assessments, encumbrances and restrictions of whatever kind or nature soever, except and subject to: Statutory Exceptions as defined in C.R.S. § 38-30-113(5)(a).

And the Grantor shall and will WARRANT THE TITLE AND DEFEND the above described premises, in the quiet and peaceable possession of the Grantees, and the heirs and assigns of the Grantees, against all and every person or persons lawfully claiming the whole or any part thereof.

IN WITNESS WHEREOF, the Grantor has executed this deed on the date set forth above.

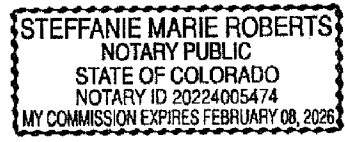
Linda Ware Linda G. Ware
Linda Ware AKA Linda G. Ware

Mark A. Ware
Mark A. Ware

State of Colorado
County of El Paso

The foregoing instrument was acknowledged before me this 31 day of October, 2022 by Linda Ware AKA Linda G. Ware

Steffanie Marie Roberts
Notary Public:
My Commission Expires: 2-8-26



State of Colorado
County of El Paso

The foregoing instrument was acknowledged before me this 31 day of October, 2022 by Mark A. Ware.

Steffanie Marie Roberts
Notary Public:
My Commission Expires: 2-8-26

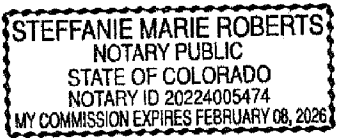




EXHIBIT B - Aerial of Knecht Property

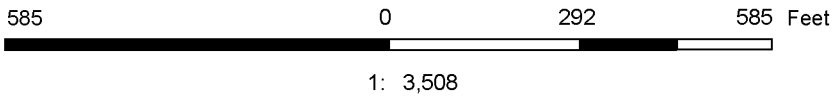


Legend

- Township
- Section
- Q40
- County

Location

Notes



This product is for informational purposes and may not have been prepared for, or be suitable for, engineering, or surveying purposes. Users of this information should review or consult the primary data information sources to ascertain the usability of the information.

**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR A DETERMINATION OF A RIGHT TO AN
ALLOCATION OF GROUNDWATER IN THE UPPER BLACK SQUIRREL CREEK DESIGNATED
GROUNDWATER BASIN

DETERMINATION NO.: 4732-BD

AQUIFER: Denver

APPLICANT: Jon Knecht

In compliance with section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Jon Knecht (Applicant) submitted an application to the Colorado Ground Water Commission (Commission) for a determination of a right to an allocation of designated groundwater from the Denver Aquifer.

FINDINGS

1. The application was received by the Commission on April 8, 2024.
2. The Applicant requests a determination of right to an allocation of designated groundwater (Determination) in the Denver aquifer (Aquifer) underlying 1.05 acres, generally described as a tract in the NW1/4 of the NW1/4 of Section 18, Township 12 South, Range 64 West, of the 6th P.M., in El Paso County (Overlying Land). According to a Nontributary Groundwater Landownership Statement dated April 4, 2024, attached hereto as Exhibit A, the Applicant owns the 1.05 acres of land, which are further described in said Ownership Statement, and claims control of the right to the groundwater in the Aquifer underlying the land.
3. The Overlying Land is located within the boundaries of the Upper Black Squirrel Creek Designated Groundwater Basin and Upper Black Squirrel Creek Ground Water Management District. The Commission has jurisdiction over the designated groundwater that is the subject of this Determination.
4. The Commission's Staff has evaluated the application relying on the claims to control of the groundwater in the Aquifer underlying the Overlying Land made by the Applicant.
5. The Applicant intends to apply the groundwater in the Aquifer underlying the Overlying Land to the following beneficial uses: domestic, irrigation, livestock watering, and replacement. The Applicant's proposed place of use of the

Determination No. 4732-BD
Aquifer: Denver
Applicant: Jon Knecht

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groundwater in the Aquifer underlying the Overlying Land is the above described 1.05 acres of Overlying Land.

6. Pursuant to section 37-90-107(7)(a), and in accordance with the Designated Basin Rules, the Commission shall allocate the groundwater in the Aquifer underlying the Overlying Land on the basis of the ownership of the Overlying Land.
7. The amount of water in storage in the Aquifer underlying the 1.05 acres of Overlying Land claimed by the Applicant is 52.7 acre-feet. This determination was based on the following as specified in the Designated Basin Rules.
 - a. The average specific yield of those saturated aquifer materials containing sufficient water that can be drained by gravity and placed to beneficial use is 17 percent.
 - b. The average thickness of those saturated aquifer materials containing sufficient water that can be drained by gravity and placed to beneficial use is 295 feet.
8. A review of the records in the Office of the State Engineer has disclosed that none of the groundwater in the Aquifer underlying the Overlying Land has been either previously determined to be allocated by the Commission, has been permitted for withdrawal by large capacity wells that have rights that were initiated prior to November 19, 1973 that are subject to section 37-90-107(7)(b), or has been permitted for withdrawal by existing small capacity wells withdrawing water under permits issued pursuant to section 37-90-105, C.R.S. The amount of designated groundwater in the Aquifer underlying the Overlying Land that is available for allocation in this Determination is 52.7 acre-feet.
9. Pursuant to section 37-90-107(7)(c)(III), an approved determination of a right to an allocation shall be considered a final determination of the amount of groundwater so determined; except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes.
10. Pursuant to section 37-90-107(7)(d), the Commission has authority to issue well permits pursuant to subsection 107(7) (i.e. permits for large capacity wells) for the withdrawal of designated groundwater from the Aquifer. Pursuant to section 37-90-107(7)(a) the Commission shall adopt the necessary rules to carry out the provisions of subsection (7). Pursuant to section 37-90-111(h), C.R.S., the Commission is empowered to adopt rules necessary to carry out the provisions of Article 90 of Title 37. In accordance with that authority, the Commission has adopted the Rules and Regulations for

Determination No. 4732-BD
Aquifer: Denver
Applicant: Jon Knecht

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the Management and Control of Designated Ground Water (2 CCR 410-1) (“Designated Basin Rules”, or “Rules”).

11. Large capacity well permits issued pursuant to section 37-90-107(7) are subject to the following provisions of statute and the Designated Basin Rules.
 - a. Pursuant to section 37-90-107(7)(a) well permits issued pursuant to subsection 107(7) shall allow withdrawals on the basis of an aquifer life of one hundred years. The 52.7 acre-feet of water in the Aquifer underlying the Overlying Land available for allocation in this Determination, if permitted for withdrawal by large capacity wells on the basis of an aquifer life of one hundred years, would result in an allowed average annual amount of withdrawal of 0.527 acre-feet per year.
 - b. Any amounts of groundwater in the Aquifer allocated in this Determination that are permitted for withdrawal pursuant to section 37-90-105, by small capacity well permits issued after the issuance of this Determination reduce the amount of water, and the allowed average annual amount of withdrawal, that may be withdrawn by wells permitted pursuant to section 37-90-107(7).
 - c. In accordance with Rule 5.3.6 of the Designated Basin Rules, it has been determined that withdrawal of groundwater from the Aquifer underlying the Overlying Land will, within one hundred years, deplete the flow of a natural stream or an alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and, therefore, the groundwater in the Aquifer underlying the Overlying Land is considered to be not-nontributary groundwater as defined in Rule 4.2.23 of the Designated Basin Rules. Also, the location of the land claimed by the Applicant is farther than one mile from the Aquifer contact with the alluvium. Pursuant to the Rules, at least four percent (4%) of the amount of the underlying water withdrawn annually must be returned to the alluvial aquifer in the vicinity of the permitted point or points of withdrawal, unless other locations are approved by the Commission. Pursuant to the Rules the Applicant may at any time be required to identify the proposed, or actual, location of the delivery of the replacement water and how the required four percent (4%) of water diverted will be, or is being, delivered into the alluvial aquifer.
12. Pursuant to section 37-90-105(1), the State Engineer has the authority to approve small capacity well permits. While water withdrawn from the Aquifer from beneath the Overlying Land by small capacity wells may consist of the groundwater allocated herein, the Commission recognizes that in approving small capacity permits the State Engineer is not bound by the terms and conditions of this Determination, and may approve small capacity permits

Determination No. 4732-BD
Aquifer: Denver
Applicant: Jon Knecht

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based on standards and with such conditions as the State Engineer considers appropriate.

13. The ability of wells permitted to withdraw the authorized amount of water from this nonrenewable Aquifer may be less than the one hundred years upon which the amount of water in the Aquifer is allocated, due to anticipated water level declines.
14. On September 6, 2024, in accordance with Rule 9.1 of the Designated Basin Rules, written recommendations concerning this application were requested from the Upper Black Squirrel Creek Ground Water Management District. No written recommendations from the District were received.
15. In accordance with sections 37-90-107(7)(c)(II) and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on September 12, 2024 and September 19, 2024. No objections to the application were received within the time limit set by statute.

ORDER

In accordance with section 37-90-107(7) and the Designated Basin Rules, the Commission hereby determines a right to an allocation of designated groundwater in the Denver Aquifer underlying 1.05 acres of land, generally described as a tract in the NW1/4 of the NW1/4 of Section 18, Township 12 South, Range 64 West, of the 6th P.M., further described in Exhibit A, subject to the following conditions.

16. The amount (i.e. volume) of water in the Aquifer underlying the 1.05 acres of Overlying Land allocated herein is 52.7 acre-feet (Underlying Groundwater).
17. The amount (i.e. volume) of Underlying Groundwater allocated herein shall be considered final, except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes, if such information indicates that the initial estimate of the amount of Underlying Groundwater in the Aquifer was incorrect.
18. Approval of this Determination meets the requirements of section 37-90-107(7)(d)(II), that requires a determination of groundwater to be withdrawn by a well be made prior to the granting of a well permit pursuant to section 37-90-107(7).
19. Well permits issued pursuant to section 37-90-107(7), (i.e. large capacity wells) and this Determination are subject to the following conditions.
 - a. The total amount of Underlying Groundwater that may be withdrawn from the Aquifer by all large capacity wells permitted pursuant to this

Determination No. 4732-BD
Aquifer: Denver
Applicant: Jon Knecht

Page 5

Determination may not exceed a volume 52.7 acre-feet, less any amount of the Underlying Groundwater allocated herein permitted to be withdrawn by small capacity wells issued permits pursuant to section 37-90-105 after the issuance of this Determination. The amounts of water permitted to be withdrawn by such small capacity wells shall be considered to be one-hundred times the annual withdrawals permitted to be withdrawn by those wells.

- b. The allowed average annual amount of withdrawal by any large capacity well (or well field) permitted to withdraw the allocated water shall be equal to the volume of water permitted to be withdrawn by that well (or well field) divided by one-hundred years.
- c. The allowed maximum annual amount of withdrawal by any large capacity well (or well field) permitted to withdraw the allocated water may exceed the allowed average annual amount of withdrawal allowed by the well permit(s) as long as the total volume of water withdrawn by such well(s) does not exceed the product of the number of years since the date(s) of issuance of the well permit(s) times the allowed average annual amount of withdrawal allowed by the well permit(s).
- d. The Applicant may pump the allowed average annual amount of withdrawal and the allowed maximum annual amount of withdrawal from one or more wells of a well field in any combination, so long as the total combined withdrawal of the wells does not exceed the amounts described in this Order.
- e. At least four percent (4%) of the amount of Underlying Groundwater withdrawn annually must be returned to the alluvial aquifer in the vicinity of the permitted point or points of withdrawal, unless other locations are approved by the Commission. The Applicant may at any time be required to identify the proposed, or actual, location of the delivery of the replacement water and how the required four percent (4%) of water diverted will be, or is being, delivered into the alluvial aquifer.
- f. The use of the Underlying Groundwater shall be limited to the following beneficial uses: domestic, irrigation, livestock watering, and replacement. The place of use of the Underlying Groundwater shall be limited to the above described 1.05 acres of Overlying Land. The Underlying Groundwater that is the subject of this Determination may be reused and successively used to extinction to the extent dominion and control over the water is maintained and its volume can be distinguished from the volume of any stream system into which it is introduced to the satisfaction of the Commission. The Underlying Groundwater is located within the Upper Black Squirrel Creek Ground Water Management District

Determination No. 4732-BD
Aquifer: Denver
Applicant: Jon Knecht

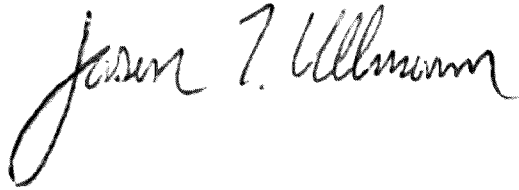
Page 6

- where local District rules apply which may further limit the withdrawal and use of the subject designated groundwater.
- g. The wells must be located on the above described 1.05 acres of Overlying Land.
 - h. No well shall be located within 600 feet of any existing large-capacity well in the same Aquifer unless a Waiver of Claim of Injury is obtained from the owner of the existing well or unless the Commission, after a hearing, finds that circumstances in a particular instance warrant that a well may be permitted without regard to this limitation.
 - i. The wells must be constructed to withdraw water from only the Denver Aquifer.
 - j. The entire depth of each well must be geophysically logged prior to installing the casing in the same manner as set forth in Rule 9 of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7.
 - k. A totalizing flow meter or other Commission approved measuring device shall be installed on each well and maintained in good working order by the well owner. Annual diversion records shall be collected and permanently maintained by the well owner and submitted to the Commission and the Upper Black Squirrel Creek Ground Water Management District upon request.
 - l. The well shall be marked in a conspicuous place with this determination number, the well permit number, and the name of the Aquifer. The well owner shall take necessary means and precautions to preserve these markings.
20. A copy of this Determination shall be recorded by the Applicant in the public records of the county in which the Overlying Land is located so that a title examination of the above described 1.05 acres of Overlying Land area, or any part thereof, shall reveal the existence of this Determination.
21. The right to an allocation of designated groundwater determined herein is a vested property right with specific ownership. Some or all of the water right may be transferred independent of the land under which the right originated. Any action taken that is intended to convey, transfer, and/or sell the subject water right shall explicitly identify this Determination number, the specific Aquifer, and the total amount (i.e. volume) of the right that is being conveyed.

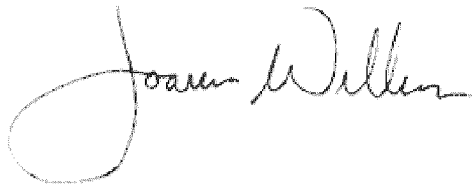
Dated this 21st day of November, 2024.

Determination No. 4732-BD
Aquifer: Denver
Applicant: Jon Knecht

Page 7

A handwritten signature in black ink that reads "Jason T. Ullmann". The signature is written in a cursive style with a large, looping initial 'J'.

Jason T. Ullmann, P.E.
Executive Director
Colorado Ground Water Commission

A handwritten signature in black ink that reads "Joanna Williams". The signature is written in a cursive style with a large, looping initial 'J'.

By: Joanna Williams, P.E.
Chief of Water Supply, Designated Basins

F&O4732-BD.docx
Prepared by: idc

Exhibit A
4732-BD
Page 1 of 1

Form no. **DIVISION OF WATER RESOURCES**
GWS-1 **DEPARTMENT OF NATURAL RESOURCES**
(7/2023) **1313 Sherman St, Room 821, Denver, CO 80203**
(303) 866-3581, www.colorado.gov/water, dwrpermitsonline@state.co.us

NONTRIBUTARY GROUNDWATER LANDOWNERSHIP STATEMENT

This form is to be submitted with applications for the following, when the applicant is the owner of the overlying land.

1) A well permit to withdraw groundwater from the Dawson, Denver, Arapahoe or Laramie-Fox Hills aquifers, or other aquifer the applicant claims contains nontributary groundwater, outside of a Designated Groundwater Basin subject to section 37-90-137(4), C.R.S., except when the right to withdraw the groundwater has been determined by a valid decree; OR

2) A determination of water right in the Dawson, Denver, Arapahoe or Laramie-Fox Hills aquifers, or a well permit to withdraw groundwater from those aquifers that are subject to Designated Basin Rule 5.4, within a Designated Groundwater Basin.

NOTE: Form submittal instructions can be found on our website Colorado.gov/water. See instructions on the reverse of this form.

Type or print in black or blue ink.

1. APPLICANT INFORMATION			
Name of Applicant Jon Knecht			
Mailing Address 12425 N. Meridian Road		City Elbert	State Colorado
		Zip Code 80106	
Telephone Number (include area code) 719-471-1212		Email rwf@cowaterlaw.com	
2. AQUIFER Denver			
3. CLAIM OF OWNERSHIP – I hereby claim that I am the owner of the following described property, as evidenced by the attached copy of a deed recorded in the county in which the property is located. Number of acres: <u>1.05</u> in the county of: <u>El Paso</u> described as follows (type the legal description below or type "see attached" and attach a legal description). TRACT IN NW4 OF SEC 18-12-64 AS FOLS: COM AT NW COR OF SD SEC 18, TH SLY ON W SEC LN 580.0 FT M/L TO S LN OF BLACK SQUIRREL CREEK FOR POB, TH CONT SLY ON W SEC LN 207.0 FT, ANG L 100< NELY 289.4 FT, NLY PARA WITH W SEC LN TO S LN OF SD CREEK, TH SWLY ALG S LN OF SD CREEK TO POB - I further claim that the right to withdraw the groundwater in the aquifer underlying the above described property has not been reserved by another, nor has consent been given to another for the right to its withdrawal.			
4. THE APPLICANT MUST PROVIDE – a Verification of Notice of Application (form no. GWS-43) (see instructions for exceptions).			
5. SIGNATURE – Sign or enter name(s) of applicant(s) or authorized agent. The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104(13)(a). I have read the statements herein, know the contents thereof, and state that they are true to my knowledge. Signature:  Date: <u>04/04/2024</u> Print name and title: <u>Ryan W. Farr, Attorney for Applicant</u>			

**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR A DETERMINATION OF A RIGHT TO AN ALLOCATION OF GROUNDWATER IN THE UPPER BLACK SQUIRREL CREEK DESIGNATED GROUNDWATER BASIN

DETERMINATION NO.: 4731-BD

AQUIFER: Arapahoe

APPLICANT: Jon Knecht

In compliance with section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Jon Knecht (Applicant) submitted an application to the Colorado Ground Water Commission (Commission) for a determination of a right to an allocation of designated groundwater from the Arapahoe Aquifer.

FINDINGS

1. The application was received by the Commission on April 8, 2024.
2. The Applicant requests a determination of right to an allocation of designated groundwater (Determination) in the Arapahoe aquifer (Aquifer) underlying 1.05 acres, generally described as a tract in the NW1/4 of the NW1/4 of Section 18, Township 12 South, Range 64 West, of the 6th P.M., in El Paso County (Overlying Land). According to a Nontributary Groundwater Landownership Statement dated April 4, 2024, attached hereto as Exhibit A, the Applicant owns the 1.05 acres of land, which are further described in said Ownership Statement, and claims control of the right to the groundwater in the Aquifer underlying the land.
3. The Overlying Land is located within the boundaries of the Upper Black Squirrel Creek Designated Groundwater Basin and Upper Black Squirrel Creek Ground Water Management District. The Commission has jurisdiction over the designated groundwater that is the subject of this Determination.
4. The Commission's Staff has evaluated the application relying on the claims to control of the groundwater in the Aquifer underlying the Overlying Land made by the Applicant.
5. The Applicant intends to apply the groundwater in the Aquifer underlying the Overlying Land to the following beneficial uses: domestic, irrigation, livestock watering, and replacement. The Applicant's proposed place of use of the

Determination No. 4731-BD
Aquifer: Arapahoe
Applicant: Jon Knecht

Page 2

groundwater in the Aquifer underlying the Overlying Land is the above described 1.05 acres of Overlying Land.

6. Pursuant to section 37-90-107(7)(a), and in accordance with the Designated Basin Rules, the Commission shall allocate the groundwater in the Aquifer underlying the Overlying Land on the basis of the ownership of the Overlying Land.
7. The amount of water in storage in the Aquifer underlying the 1.05 acres of Overlying Land claimed by the Applicant is 41.1 acre-feet. This determination was based on the following as specified in the Designated Basin Rules.
 - a. The average specific yield of those saturated aquifer materials containing sufficient water that can be drained by gravity and placed to beneficial use is 17 percent.
 - b. The average thickness of those saturated aquifer materials containing sufficient water that can be drained by gravity and placed to beneficial use is 230 feet.
8. A review of the records in the Office of the State Engineer has disclosed that none of the groundwater in the Aquifer underlying the Overlying Land has been either previously determined to be allocated by the Commission, has been permitted for withdrawal by large capacity wells that have rights that were initiated prior to November 19, 1973 that are subject to section 37-90-107(7)(b), or has been permitted for withdrawal by existing small capacity wells withdrawing water under permits issued pursuant to section 37-90-105, C.R.S. The amount of designated groundwater in the Aquifer underlying the Overlying Land that is available for allocation in this Determination is 41.1 acre-feet.
9. Pursuant to section 37-90-107(7)(c)(III), an approved determination of a right to an allocation shall be considered a final determination of the amount of groundwater so determined; except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes.
10. Pursuant to section 37-90-107(7)(d), the Commission has authority to issue well permits pursuant to subsection 107(7) (i.e. permits for large capacity wells) for the withdrawal of designated groundwater from the Aquifer. Pursuant to section 37-90-107(7)(a) the Commission shall adopt the necessary rules to carry out the provisions of subsection (7). Pursuant to section 37-90-111(h), C.R.S., the Commission is empowered to adopt rules necessary to carry out the provisions of Article 90 of Title 37. In accordance with that authority, the Commission has adopted the Rules and Regulations for

Determination No. 4731-BD
Aquifer: Arapahoe
Applicant: Jon Knecht

Page 3

the Management and Control of Designated Ground Water (2 CCR 410-1) (“Designated Basin Rules”, or “Rules”).

11. Large capacity well permits issued pursuant to section 37-90-107(7) are subject to the following provisions of statute and the Designated Basin Rules.
 - a. Pursuant to section 37-90-107(7)(a) well permits issued pursuant to subsection 107(7) shall allow withdrawals on the basis of an aquifer life of one hundred years. The 41.1 acre-feet of water in the Aquifer underlying the Overlying Land available for allocation in this Determination, if permitted for withdrawal by large capacity wells on the basis of an aquifer life of one hundred years, would result in an allowed average annual amount of withdrawal of 0.411 acre-feet per year.
 - b. Any amounts of groundwater in the Aquifer allocated in this Determination that are permitted for withdrawal pursuant to section 37-90-105, by small capacity well permits issued after the issuance of this Determination reduce the amount of water, and the allowed average annual amount of withdrawal, that may be withdrawn by wells permitted pursuant to section 37-90-107(7).
 - c. In accordance with Rule 5.3.6 of the Designated Basin Rules, it has been determined that withdrawal of groundwater from the Aquifer underlying the Overlying Land will not, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and, therefore, the groundwater in the Aquifer underlying the Overlying Land is nontributary groundwater as defined in Rule 4.2.22 of the Designated Basin Rules. Pursuant to the Rules, no more than 98% of the amount of the groundwater in the Aquifer underlying the Overlying Land withdrawn annually shall be consumed.
12. Pursuant to section 37-90-105(1), the State Engineer has the authority to approve small capacity well permits. While water withdrawn from the Aquifer from beneath the Overlying Land by small capacity wells may consist of the groundwater allocated herein, the Commission recognizes that in approving small capacity permits the State Engineer is not bound by the terms and conditions of this Determination, and may approve small capacity permits based on standards and with such conditions as the State Engineer considers appropriate.
13. The ability of wells permitted to withdraw the authorized amount of water from this nonrenewable Aquifer may be less than the one hundred years upon which the amount of water in the Aquifer is allocated, due to anticipated water level declines.

Determination No. 4731-BD
Aquifer: Arapahoe
Applicant: Jon Knecht

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14. On September 6, 2024, in accordance with Rule 9.1 of the Designated Basin Rules, written recommendations concerning this application were requested from the Upper Black Squirrel Creek Ground Water Management District. No written recommendations from the District were received.
15. In accordance with sections 37-90-107(7)(c)(II) and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on September 12, 2024 and September 19, 2024. No objections to the application were received within the time limit set by statute.

ORDER

In accordance with section 37-90-107(7) and the Designated Basin Rules, the Commission hereby determines a right to an allocation of designated groundwater in the Arapahoe Aquifer underlying 1.05 acres of land, generally described as a tract in the NW1/4 of the NW1/4 of Section 18, Township 12 South, Range 64 West, of the 6th P.M., further described in Exhibit A, subject to the following conditions.

16. The amount (i.e. volume) of water in the Aquifer underlying the 1.05 acres of Overlying Land allocated herein is 41.1 acre-feet (Underlying Groundwater).
17. The amount (i.e. volume) of Underlying Groundwater allocated herein shall be considered final, except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes, if such information indicates that the initial estimate of the amount of Underlying Groundwater in the Aquifer was incorrect.
18. Approval of this Determination meets the requirements of section 37-90-107(7)(d)(II), that requires a determination of groundwater to be withdrawn by a well be made prior to the granting of a well permit pursuant to section 37-90-107(7).
19. Well permits issued pursuant to section 37-90-107(7), (i.e. large capacity wells) and this Determination are subject to the following conditions.
 - a. The total amount of Underlying Groundwater that may be withdrawn from the Aquifer by all large capacity wells permitted pursuant to this Determination may not exceed a volume 41.1 acre-feet, less any amount of the Underlying Groundwater allocated herein permitted to be withdrawn by small capacity wells issued permits pursuant to section 37-90-105 after the issuance of this Determination. The amounts of water permitted to be withdrawn by such small capacity wells shall be considered to be one-hundred times the annual withdrawals permitted to be withdrawn by those wells.

Determination No. 4731-BD
Aquifer: Arapahoe
Applicant: Jon Knecht

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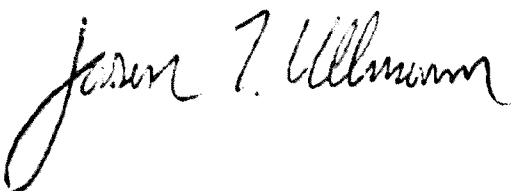
- b. The allowed average annual amount of withdrawal by any large capacity well (or well field) permitted to withdraw the allocated water shall be equal to the volume of water permitted to be withdrawn by that well (or well field) divided by one-hundred years.
- c. The allowed maximum annual amount of withdrawal by any large capacity well (or well field) permitted to withdraw the allocated water may exceed the allowed average annual amount of withdrawal allowed by the well permit(s) as long as the total volume of water withdrawn by such well(s) does not exceed the product of the number of years since the date(s) of issuance of the well permit(s) times the allowed average annual amount of withdrawal allowed by the well permit(s).
- d. The Applicant may pump the allowed average annual amount of withdrawal and the allowed maximum annual amount of withdrawal from one or more wells of a well field in any combination, so long as the total combined withdrawal of the wells does not exceed the amounts described in this Order.
- e. No more than 98% of the amount of Underlying Groundwater withdrawn annually shall be consumed. The Commission may require well owners to demonstrate periodically that no more than 98% of the Underlying Groundwater withdrawn annually is being consumed.
- f. The use of the Underlying Groundwater shall be limited to the following beneficial uses: domestic, irrigation, livestock watering, and replacement. The place of use of the Underlying Groundwater shall be limited to the above described 1.05 acres of Overlying Land. The Underlying Groundwater that is the subject of this Determination may be reused and successively used to extinction to the extent dominion and control over the water is maintained and its volume can be distinguished from the volume of any stream system into which it is introduced to the satisfaction of the Commission. The Underlying Groundwater is located within the Upper Black Squirrel Creek Ground Water Management District where local District rules apply which may further limit the withdrawal and use of the subject designated groundwater.
- g. The wells must be located on the above described 1.05 acres of Overlying Land.
- h. No well shall be located within 600 feet of any existing large-capacity well in the same Aquifer unless a Waiver of Claim of Injury is obtained from the owner of the existing well or unless the Commission, after a hearing, finds that circumstances in a particular instance warrant that a well may be permitted without regard to this limitation.

Determination No. 4731-BD
Aquifer: Arapahoe
Applicant: Jon Knecht

Page 6

- i. The wells must be constructed to withdraw water from only the Arapahoe Aquifer.
 - j. The entire depth of each well must be geophysically logged prior to installing the casing in the same manner as set forth in Rule 9 of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7.
 - k. A totalizing flow meter or other Commission approved measuring device shall be installed on each well and maintained in good working order by the well owner. Annual diversion records shall be collected and permanently maintained by the well owner and submitted to the Commission and the Upper Black Squirrel Creek Ground Water Management District upon request.
 - l. The well shall be marked in a conspicuous place with this determination number, the well permit number, and the name of the Aquifer. The well owner shall take necessary means and precautions to preserve these markings.
20. A copy of this Determination shall be recorded by the Applicant in the public records of the county in which the Overlying Land is located so that a title examination of the above described 1.05 acres of Overlying Land area, or any part thereof, shall reveal the existence of this Determination.
21. The right to an allocation of designated groundwater determined herein is a vested property right with specific ownership. Some or all of the water right may be transferred independent of the land under which the right originated. Any action taken that is intended to convey, transfer, and/or sell the subject water right shall explicitly identify this Determination number, the specific Aquifer, and the total amount (i.e. volume) of the right that is being conveyed.

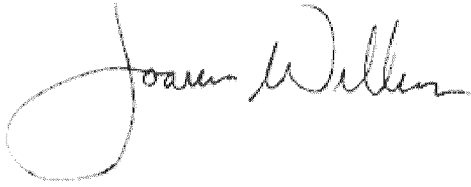
Dated this 21st day of November, 2024.



Jason T. Ullmann, P.E.
Executive Director
Colorado Ground Water Commission

Determination No. 4731-BD
Aquifer: Arapahoe
Applicant: Jon Knecht

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By: Joanna Williams, P.E.
Chief of Water Supply, Designated Basins

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Prepared by: idc

Exhibit A
4731-BD
Page 1 of 1

Form no. **DIVISION OF WATER RESOURCES**
GWS-1 **DEPARTMENT OF NATURAL RESOURCES**
(7/2023) **1313 Sherman St, Room 821, Denver, CO 80203**
(303) 866-3581, www.colorado.gov/water, dwrpermitsonline@state.co.us

NONTRIBUTARY GROUNDWATER LANDOWNERSHIP STATEMENT

This form is to be submitted with applications for the following, when the applicant is the owner of the overlying land.

1) A well permit to withdraw groundwater from the Dawson, Denver, Arapahoe or Laramie-Fox Hills aquifers, or other aquifer the applicant claims contains nontributary groundwater, outside of a Designated Groundwater Basin subject to section 37-90-137(4), C.R.S., except when the right to withdraw the groundwater has been determined by a valid decree; OR

2) A determination of water right in the Dawson, Denver, Arapahoe or Laramie-Fox Hills aquifers, or a well permit to withdraw groundwater from those aquifers that are subject to Designated Basin Rule 5.4, within a Designated Groundwater Basin.

NOTE: Form submittal instructions can be found on our website Colorado.gov/water. See instructions on the reverse of this form. Type or print in black or blue ink.

1. APPLICANT INFORMATION			
Name of Applicant Jon Knecht			
Mailing Address 12425 N. Meridian Road	City Elbert	State Colorado	Zip Code 80106
Telephone Number (include area code) 719-471-1212		Email rwf@cowaterlaw.com	
2. AQUIFER Arapahoe			
3. CLAIM OF OWNERSHIP – I hereby claim that I am the owner of the following described property, as evidenced by the attached copy of a deed recorded in the county in which the property is located. Number of acres: <u>1.05</u> in the county of: <u>El Paso</u> described as follows (type the legal description below or type "see attached" and attach a legal description). TRACT IN NW4 OF SEC 18-12-64 AS FOLS: COM AT NW COR OF SD SEC 18, TH SLY ON W SEC LN 580.0 FT M/L TO S LN OF BLACK SQUIRREL CREEK FOR POB, TH CONT SLY ON W SEC LN 207.0 FT, ANG L 100< NELY 289.4 FT, NLY PARA WITH W SEC LN TO S LN OF SD CREEK, TH SWLY ALG S LN OF SD CREEK TO POB - I further claim that the right to withdraw the groundwater in the aquifer underlying the above described property has not been reserved by another, nor has consent been given to another for the right to its withdrawal.			
4. THE APPLICANT MUST PROVIDE – a Verification of Notice of Application (form no. GWS-43) (see instructions for exceptions).			
5. SIGNATURE – Sign or enter name(s) of applicant(s) or authorized agent. The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104(13)(a). I have read the statements herein, know the contents thereof, and state that they are true to my knowledge. Signature:  Date: <u>04/04/2024</u> Print name and title: <u>Ryan W. Farr, Attorney for Applicant</u>			

**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR A DETERMINATION OF A RIGHT TO AN ALLOCATION OF GROUNDWATER IN THE UPPER BLACK SQUIRREL CREEK DESIGNATED GROUNDWATER BASIN

DETERMINATION NO.: 4730-BD

AQUIFER: Laramie-Fox Hills

APPLICANT: Jon Knecht

In compliance with section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Jon Knecht (Applicant) submitted an application to the Colorado Ground Water Commission (Commission) for a determination of a right to an allocation of designated groundwater from the Laramie-Fox Hills Aquifer.

FINDINGS

1. The application was received by the Commission on April 8, 2024.
2. The Applicant requests a determination of right to an allocation of designated groundwater (Determination) in the Laramie-Fox Hills aquifer (Aquifer) underlying 1.05 acres, generally described as a tract in the NW1/4 of the NW1/4 of Section 18, Township 12 South, Range 64 West, of the 6th P.M., in El Paso County (Overlying Land). According to a Nontributary Groundwater Landownership Statement dated April 4, 2024, attached hereto as Exhibit A, the Applicant owns the 1.05 acres of land, which are further described in said Ownership Statement, and claims control of the right to the groundwater in the Aquifer underlying the land.
3. The Overlying Land is located within the boundaries of the Upper Black Squirrel Creek Designated Groundwater Basin and Upper Black Squirrel Creek Ground Water Management District. The Commission has jurisdiction over the designated groundwater that is the subject of this Determination.
4. The Commission's Staff has evaluated the application relying on the claims to control of the groundwater in the Aquifer underlying the Overlying Land made by the Applicant.
5. The Applicant intends to apply the groundwater in the Aquifer underlying the Overlying Land to the following beneficial uses: domestic, irrigation, livestock watering, and replacement. The Applicant's proposed place of use of the

Determination No. 4730-BD
Aquifer: Laramie-Fox Hills
Applicant: Jon Knecht

Page 2

groundwater in the Aquifer underlying the Overlying Land is the above describe 1.05 acres of Overlying Land.

6. Pursuant to section 37-90-107(7)(a), and in accordance with the Designated Basin Rules, the Commission shall allocate the groundwater in the Aquifer underlying the Overlying Land on the basis of the ownership of the Overlying Land.
7. The amount of water in storage in the Aquifer underlying the 1.05 acres of Overlying Land claimed by the Applicant is 30.7 acre-feet. This determination was based on the following as specified in the Designated Basin Rules.
 - a. The average specific yield of those saturated aquifer materials containing sufficient water that can be drained by gravity and placed to beneficial use is 15 percent.
 - b. The average thickness of those saturated aquifer materials containing sufficient water that can be drained by gravity and placed to beneficial use is 195 feet.
8. A review of the records in the Office of the State Engineer has disclosed that none of the groundwater in the Aquifer underlying the Overlying Land has been either previously determined to be allocated by the Commission, has been permitted for withdrawal by large capacity wells that have rights that were initiated prior to November 19, 1973 that are subject to section 37-90-107(7)(b), or has been permitted for withdrawal by existing small capacity wells withdrawing water under permits issued pursuant to section 37-90-105, C.R.S. The amount of designated groundwater in the Aquifer underlying the Overlying Land that is available for allocation in this Determination is 30.7 acre-feet.
9. Pursuant to section 37-90-107(7)(c)(III), an approved determination of a right to an allocation shall be considered a final determination of the amount of groundwater so determined; except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes.
10. Pursuant to section 37-90-107(7)(d), the Commission has authority to issue well permits pursuant to subsection 107(7) (i.e. permits for large capacity wells) for the withdrawal of designated groundwater from the Aquifer. Pursuant to section 37-90-107(7)(a) the Commission shall adopt the necessary rules to carry out the provisions of subsection (7). Pursuant to section 37-90-111(h), C.R.S., the Commission is empowered to adopt rules necessary to carry out the provisions of Article 90 of Title 37. In accordance with that authority, the Commission has adopted the Rules and Regulations for

Determination No. 4730-BD
Aquifer: Laramie-Fox Hills
Applicant: Jon Knecht

Page 3

the Management and Control of Designated Ground Water (2 CCR 410-1) (“Designated Basin Rules”, or “Rules”).

11. Large capacity well permits issued pursuant to section 37-90-107(7) are subject to the following provisions of statute and the Designated Basin Rules.
 - a. Pursuant to section 37-90-107(7)(a) well permits issued pursuant to subsection 107(7) shall allow withdrawals on the basis of an aquifer life of one hundred years. The 30.7 acre-feet of water in the Aquifer underlying the Overlying Land available for allocation in this Determination, if permitted for withdrawal by large capacity wells on the basis of an aquifer life of one hundred years, would result in an allowed average annual amount of withdrawal of 0.307 acre-feet per year.
 - b. Any amounts of groundwater in the Aquifer allocated in this Determination that are permitted for withdrawal pursuant to section 37-90-105, by small capacity well permits issued after the issuance of this Determination reduce the amount of water, and the allowed average annual amount of withdrawal, that may be withdrawn by wells permitted pursuant to section 37-90-107(7).
 - c. In accordance with Rule 5.3.6 of the Designated Basin Rules, it has been determined that withdrawal of groundwater from the Aquifer underlying the Overlying Land will not, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and, therefore, the groundwater in the Aquifer underlying the Overlying Land is nontributary groundwater as defined in Rule 4.2.22 of the Designated Basin Rules. Pursuant to the Rules, no more than 98% of the amount of the groundwater in the Aquifer underlying the Overlying Land withdrawn annually shall be consumed.
12. Pursuant to section 37-90-105(1), the State Engineer has the authority to approve small capacity well permits. While water withdrawn from the Aquifer from beneath the Overlying Land by small capacity wells may consist of the groundwater allocated herein, the Commission recognizes that in approving small capacity permits the State Engineer is not bound by the terms and conditions of this Determination, and may approve small capacity permits based on standards and with such conditions as the State Engineer considers appropriate.
13. The ability of wells permitted to withdraw the authorized amount of water from this nonrenewable Aquifer may be less than the one hundred years upon which the amount of water in the Aquifer is allocated, due to anticipated water level declines.

Determination No. 4730-BD
Aquifer: Laramie-Fox Hills
Applicant: Jon Knecht

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14. On September 6, 2024, in accordance with Rule 9.1 of the Designated Basin Rules, written recommendations concerning this application were requested from the Upper Black Squirrel Creek Ground Water Management District. No written recommendations from the District were received.
15. In accordance with sections 37-90-107(7)(c)(II) and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on September 12, 2024 and September 19, 2024. No objections to the application were received within the time limit set by statute.

ORDER

In accordance with section 37-90-107(7) and the Designated Basin Rules, the Commission hereby determines a right to an allocation of designated groundwater in the Laramie-Fox Hills Aquifer underlying 1.05 acres of land, generally described as a tract in the NW1/4 of the NW1/4 of Section 18, Township 12 South, Range 64 West, of the 6th P.M., further described in Exhibit A, subject to the following conditions.

16. The amount (i.e. volume) of water in the Aquifer underlying the 1.05 acres of Overlying Land allocated herein is 30.7 acre-feet (Underlying Groundwater).
17. The amount (i.e. volume) of Underlying Groundwater allocated herein shall be considered final, except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes, if such information indicates that the initial estimate of the amount of Underlying Groundwater in the Aquifer was incorrect.
18. Approval of this Determination meets the requirements of section 37-90-107(7)(d)(II), that requires a determination of groundwater to be withdrawn by a well be made prior to the granting of a well permit pursuant to section 37-90-107(7).
19. Well permits issued pursuant to section 37-90-107(7), (i.e. large capacity wells) and this Determination are subject to the following conditions.
 - a. The total amount of Underlying Groundwater that may be withdrawn from the Aquifer by all large capacity wells permitted pursuant to this Determination may not exceed a volume 30.7 acre-feet, less any amount of the Underlying Groundwater allocated herein permitted to be withdrawn by small capacity wells issued permits pursuant to section 37-90-105 after the issuance of this Determination. The amounts of water permitted to be withdrawn by such small capacity wells shall be considered to be one-hundred times the annual withdrawals permitted to be withdrawn by those wells.

Determination No. 4730-BD
Aquifer: Laramie-Fox Hills
Applicant: Jon Knecht

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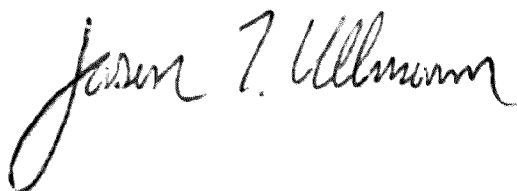
- b. The allowed average annual amount of withdrawal by any large capacity well (or well field) permitted to withdraw the allocated water shall be equal to the volume of water permitted to be withdrawn by that well (or well field) divided by one-hundred years.
- c. The allowed maximum annual amount of withdrawal by any large capacity well (or well field) permitted to withdraw the allocated water may exceed the allowed average annual amount of withdrawal allowed by the well permit(s) as long as the total volume of water withdrawn by such well(s) does not exceed the product of the number of years since the date(s) of issuance of the well permit(s) times the allowed average annual amount of withdrawal allowed by the well permit(s).
- d. The Applicant may pump the allowed average annual amount of withdrawal and the allowed maximum annual amount of withdrawal from one or more wells of a well field in any combination, so long as the total combined withdrawal of the wells does not exceed the amounts described in this Order.
- e. No more than 98% of the amount of Underlying Groundwater withdrawn annually shall be consumed. The Commission may require well owners to demonstrate periodically that no more than 98% of the Underlying Groundwater withdrawn annually is being consumed.
- f. The use of the Underlying Groundwater shall be limited to the following beneficial uses: domestic, irrigation, livestock watering, and replacement. The place of use of the Underlying Groundwater shall be limited to the above described 1.05 acres of Overlying Land. The Underlying Groundwater that is the subject of this Determination may be reused and successively used to extinction to the extent dominion and control over the water is maintained and its volume can be distinguished from the volume of any stream system into which it is introduced to the satisfaction of the Commission. The Underlying Groundwater is located within the Upper Black Squirrel Creek Ground Water Management District where local District rules apply which may further limit the withdrawal and use of the subject designated groundwater.
- g. The wells must be located on the above described 1.05 acres of Overlying Land.
- h. No well shall be located within 600 feet of any existing large-capacity well in the same Aquifer unless a Waiver of Claim of Injury is obtained from the owner of the existing well or unless the Commission, after a hearing, finds that circumstances in a particular instance warrant that a well may be permitted without regard to this limitation.

Determination No. 4730-BD
Aquifer: Laramie-Fox Hills
Applicant: Jon Knecht

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- i. The wells must be constructed to withdraw water from only the Laramie-Fox Hills Aquifer.
 - j. The entire depth of each well must be geophysically logged prior to installing the casing in the same manner as set forth in Rule 9 of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7.
 - k. A totalizing flow meter or other Commission approved measuring device shall be installed on each well and maintained in good working order by the well owner. Annual diversion records shall be collected and permanently maintained by the well owner and submitted to the Commission and the Upper Black Squirrel Creek Ground Water Management District upon request.
 - l. The well shall be marked in a conspicuous place with this determination number, the well permit number, and the name of the Aquifer. The well owner shall take necessary means and precautions to preserve these markings.
20. A copy of this Determination shall be recorded by the Applicant in the public records of the county in which the Overlying Land is located so that a title examination of the above described 1.05 acres of Overlying Land area, or any part thereof, shall reveal the existence of this Determination.
21. The right to an allocation of designated groundwater determined herein is a vested property right with specific ownership. Some or all of the water right may be transferred independent of the land under which the right originated. Any action taken that is intended to convey, transfer, and/or sell the subject water right shall explicitly identify this Determination number, the specific Aquifer, and the total amount (i.e. volume) of the right that is being conveyed.

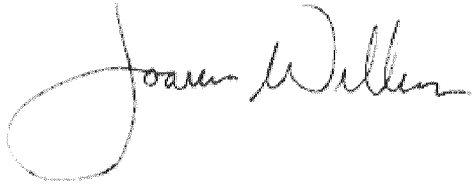
Dated this 21st day of November, 2024.



Jason T. Ullmann, P.E.
Executive Director
Colorado Ground Water Commission

Determination No. 4730-BD
Aquifer: Laramie-Fox Hills
Applicant: Jon Knecht

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A handwritten signature in black ink, appearing to read "Joanna Williams". The signature is written in a cursive style with a large, looping initial 'J'.

By: Joanna Williams, P.E.
Chief of Water Supply, Designated Basins

F&O4730-BD.docx
Prepared by: idc

Exhibit A
4730-BD
Page 1 of 1

Form no **DIVISION OF WATER RESOURCES**
GWS-1 **DEPARTMENT OF NATURAL RESOURCES**
(7/2023) **1313 Sherman St, Room 821, Denver, CO 80203**
(303) 866-3581, www.colorado.gov/water, dwrpermitsonline@state.co.us

NONTRIBUTARY GROUNDWATER LANDOWNERSHIP STATEMENT

This form is to be submitted with applications for the following, when the applicant is the owner of the overlying land
1) A well permit to withdraw groundwater from the Dawson, Denver, Arapahoe or Laramie-Fox Hills aquifers, or other aquifer the applicant claims contains nontributary groundwater, outside of a Designated Groundwater Basin subject to section 37-90-137(4), C.R.S., except when the right to withdraw the groundwater has been determined by a valid decree; OR
2) A determination of water right in the Dawson, Denver, Arapahoe or Laramie-Fox Hills aquifers, or a well permit to withdraw groundwater from those aquifers that are subject to Designated Basin Rule 5 4, within a Designated Groundwater Basin.
NOTE: Form submittal instructions can be found on our website Colorado.gov/water. See instructions on the reverse of this form.
Type or print in black or blue ink.

1. APPLICANT INFORMATION			
Name of Applicant Jon Knecht			
Mailing Address 12425 N. Meridian Road	City Elbert	State Colorado	Zip Code 80106
Telephone Number (include area code) 719-471-1212		Email rwf@cowaterlaw.com	
2. AQUIFER Laramie-Fox Hills			
3. CLAIM OF OWNERSHIP – I hereby claim that I am the owner of the following described property, as evidenced by the attached copy of a deed recorded in the county in which the property is located. Number of acres: <u>1.05</u> in the county of: <u>El Paso</u> described as follows (type the legal description below or type "see attached" and attach a legal description) TRACT IN NW4 OF SEC 18-12-64 AS FOLS: COM AT NW COR OF SD SEC 18, TH SLY ON W SEC LN 580.0 FT M/L TO S LN OF BLACK SQUIRREL CREEK FOR POB, TH CONT SLY ON W SEC LN 207.0 FT, ANG L 100< NELY 289.4 FT, NLY PARA WITH W SEC LN TO S LN OF SD CREEK, TH SWLY ALG S LN OF SD CREEK TO POB - I further claim that the right to withdraw the groundwater in the aquifer underlying the above described property has not been reserved by another, nor has consent been given to another for the right to its withdrawal.			
4. THE APPLICANT MUST PROVIDE – a Verification of Notice of Application (form no. GWS-43) (see instructions for exceptions).			
5. SIGNATURE – Sign or enter name(s) of applicant(s) or authorized agent. The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104(13)(a) I have read the statements herein, know the contents thereof, and state that they are true to my knowledge. Signature: _____ Date: <u>04/04/2024</u> Print name and title: <u>Ryan W. Farr, Attorney for Applicant</u>			

**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR DETERMINATION OF WATER RIGHT TO GROUND WATER IN
THE UPPER BLACK SQUIRREL CREEK DESIGNATED GROUND WATER BASIN

DETERMINATION NO.: 3557-BD

AQUIFER: Dawson

APPLICANT: Mark A. Ware and Linda G. Ware

In compliance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Mark A. Ware and Linda G. Ware (hereinafter "Applicant") submitted an application for determination of water right to designated ground water from the Dawson Aquifer.

FINDINGS

1. The application was received by the Colorado Ground Water Commission on January 24, 2017.
2. The Applicant requests a determination of right to designated ground water in the Dawson Aquifer (hereinafter "Aquifer") underlying 19.98 acres, generally described as part of the N1/2 of the NW1/4 of Section 18, Township 12 South, Range 64 West of the 6th P.M, in El Paso County. According to a signed Ownership Statement dated January 13, 2017, attached hereto as Exhibit A, the Applicant owns the 19.98 acres of land, which are further described in said Ownership Statement (hereinafter "Overlying Land"), and claims control of the right to the ground water in the Aquifer underlying this land (hereinafter "Underlying Ground Water").
3. The Overlying Land is located within the boundaries of the Upper Black Squirrel Creek Designated Ground Water Basin and within the Upper Black Squirrel Creek Ground Water Management District. The Colorado Ground Water Commission (hereinafter "Commission") has jurisdiction over the ground water that is the subject of this Determination.
4. The Commission Staff has evaluated the application relying on the claims to control of the Underlying Ground Water in the Aquifer made by the Applicant.
5. The Applicant intends to apply the Underlying Ground Water to the following beneficial uses: domestic, irrigation, livestock watering, and replacement. The Applicant's proposed place of use of the Underlying Ground Water is the above described 19.98 acres of overlying land.
6. The application requests the maximum allowable annual amount of Underlying Ground Water from beneath the Overlying Land.
7. The quantity of water in the Aquifer underlying the 19.98 acres of Overlying Land claimed by the applicant is 1,140 acre-feet. This determination was based on the following as specified in the Designated Basin Rules:
 - a. The average specific yield of the saturated permeable material of the Aquifer beneath the Overlying Land that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 20 percent.

Aquifer: Dawson

Applicant: Mark A. Ware and Linda G. Ware

- b. The average thickness of the saturated permeable material of the Aquifer beneath the Overlying Land that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 285 feet.
8. Pursuant to Section 37-90-107(7)(a), C.R.S., and in accordance with the Designated Basin Rules, the Commission shall allocate the underlying ground water based on ownership of the overlying land and an aquifer life of one hundred years. Should the entire quantity of underlying ground water identified above be available for allocation, the allowed average annual amount of withdrawal from the Aquifer that could be allocated from beneath the Overlying Land would be 11.4 acre-feet per year.
9. A review of the records in the Office of the State Engineer has disclosed that two small-capacity wells, permit nos. 77690 and 134102, are located on the Overlying Land. Well permit no. 77690 is permitted to withdraw 1.5 acre-feet per year and well permit no. 134102 is permitted to withdraw 1 acre-foot per year of ground water from the Aquifer from beneath the Overlying Land. In accordance with Rule 5.3.2.4 of the Designated Basin Rules, the allowed average annual amount of withdrawal from beneath the Overlying Land is reduced to 11.3 acre-feet per year so as to account for water historically withdrawn by the two wells from beneath the Overlying Land (based on well permit no. 77690 pumping a total of 4.78 acre-feet and well permit no. 134102 pumping a total of 3.38 acre-feet). The effect of this reservation is to reduce the quantity of Underlying Ground Water which is considered available for allocation to 1,130 acre-feet. Except for the two wells, review of the records in the Office of the State Engineer has disclosed that none of the water in the Aquifer underlying the land claimed by the Applicant has been previously allocated or permitted for withdrawal.
10. The applicant intends to apply for new well permits to re-permit wells 77690 and 134102 pursuant to the replacement plan being concurrently approved for the Dawson aquifer. Well permit nos. 77690 and 134102 will be cancelled upon issuance of new well permits issued pursuant to this Determination of Water Right and the replacement plan.
11. Pursuant to Section 37-90-107(7)(c)(III), C.R.S., an approved determination of water right shall be considered a final determination of the amount of ground water so determined; except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes.
12. The ability of wells permitted to withdraw the authorized amount of water from this non-renewable Aquifer may be less than the one hundred years upon which the amount of water in the Aquifer is allocated, due to anticipated water level declines.
13. In accordance with Rule 5.3.6 of the Designated Basin Rules, it has been determined that withdrawal of ground water from the Aquifer underlying the land claimed by the Applicant will, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and, therefore, the Underlying Ground Water is considered to be not-nontributary ground water. Withdrawal of water from the Aquifer underlying the claimed land area would impact the alluvial aquifer(s) of Black Squirrel Creek or its tributaries, which has been determined to be over-appropriated. Commission approval of a replacement plan pursuant to Section 37-90-107.5, C.R.S., and Rule 5.6 of the Designated Basin Rules, providing for the actual depletion of the alluvial aquifer and adequate to prevent any material injury to existing water rights,

is required prior to approval of well permits for wells to be located on this land area to withdraw the Underlying Ground Water from the Aquifer.

14. On May 25, 2018, in accordance with Rule 9.1 of the Designated Basin Rules, a letter was sent to the Upper Black Squirrel Creek Ground Water Management District requesting written recommendations concerning this application. No written recommendations from the district were received.
15. In accordance with Sections 37-90-107(7)(c)(II) and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on May 31, 2018 and June 7, 2018. No objections to the application were received within the time limit set by statute.

ORDER

In accordance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, the Colorado Ground Water Commission orders that the application for determination of right to designated ground water in the Dawson Aquifer underlying 19.98 acres of land, generally described as part of the N1/2 of the NW1/4 of Section 18, Township 12 South, Range 64 West of the 6th P.M., further described in Exhibit A, is approved subject to the following conditions:

16. The allowed average annual amount of withdrawal of Underlying Ground Water from the Aquifer shall not exceed 11.3 acre-feet.
17. The total volume of Underlying Ground Water that may be withdrawn from the Aquifer pursuant to this Determination of Water Right shall not exceed 1,130 acre-feet.
18. The applicant must obtain new well permits for the existing wells (current permit nos. 77690 and 134102) to operate those wells pursuant to this Determination of Water Right and the replacement plan being concurrently approved for the Dawson aquifer.
19. The Commission may adjust the total volume and the allowed average annual amount of withdrawal of Underlying Ground Water that may be withdrawn from the Aquifer to conform to actual Aquifer characteristics based on analysis of geophysical logs or other site-specific data if such analysis indicates that the initial estimate of the amount of Underlying Ground Water in the Aquifer was incorrect.
20. The allowed maximum annual amount of withdrawal may exceed the allowed average annual amount of withdrawal as long as the total volume of Underlying Ground Water withdrawn does not exceed the product of the number of years since the date of approval of this determination times the allowed average annual amount of withdrawal.
21. The Applicant may pump the allowed average annual amount of withdrawal and the allowed maximum annual amount of withdrawal from one or more wells of a well field in any combination, so long as the total combined withdrawal of the wells does not exceed the amounts described in this Order.
22. Commission approval of a replacement plan, providing for actual depletion of affected alluvial aquifers and adequate to prevent any material injury to existing water rights in such alluvial aquifers, is required prior to approval of well permits that allow the withdraw of the Underlying Ground Water.

Aquifer: Dawson


Applicant: Mark A. Ware and Linda G. Ware

23. The use of the allowed amount of Underlying Ground Water from this allocation shall be limited to the following beneficial uses: domestic, irrigation, livestock watering, and replacement. The place of use shall be limited to the above described 19.98 acres of Overlying Land. The ground water that is the subject of this Determination may be reused and successively used to extinction to the extent dominion and control over the water is maintained and its volume can be distinguished from the volume of any stream system into which it is introduced to the satisfaction of the Commission. The ground water right determined herein is located within the Upper Black Squirrel Creek Ground Water Management District where local District rules apply which may further limit the withdrawal and use of the subject designated ground water.
24. Approval of this determination meets the requirements of Section 37-90-107(7)(d)(II) that requires a determination of ground water be made prior to the granting of a well permit pursuant to Section 37-90-107(7).
25. Wells withdrawing the allowed amount of Underlying Ground Water allocated herein are subject to the following conditions:
 - a. The wells must be located on the above described 19.98 acres of Overlying Land.
 - b. No well shall be located within 600 feet of any existing large-capacity well in the same Aquifer unless a Waiver of Claim of Injury is obtained from the owner of the existing well or unless the Commission, after a hearing, finds that circumstances in a particular instance warrant that a well may be permitted without regard to this limitation.
 - c. The wells must be constructed to withdraw water from only the Dawson Aquifer.
 - d. The entire depth of each well must be geophysically logged prior to installing the casing as forth in Rule 9 of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7.
 - e. A totalizing flow meter or other Commission approved measuring device shall be installed on each well and maintained in good working order by the well owner. Annual diversion records shall be collected and permanently maintained by the well owner and submitted to the Commission and the Upper Black Squirrel Creek Ground Water Management District upon request.
 - f. The well shall be marked in a conspicuous place with this determination number, the well permit number, and the name of the Aquifer. The well owner shall take necessary means and precautions to preserve these markings.
26. A copy of this Findings and Order shall be recorded by the Applicant in the public records of the county in which the Overlying Land is located so that a title examination of the above described 19.98 acres of Overlying Land area, or any part thereof, shall reveal the existence of this determination.
27. The ground water right determined herein is a vested property right with specific ownership. The ground water right may be transferred independent of the land under which the right originated. Any action taken that is intended to convey, transfer, and/or sell the subject water right shall explicitly identify this Determination of Water Right number, the specific aquifer, and the annual volume (based on a 100-year aquifer life) or total volume of ground water that is being conveyed.

Determination No.: 3557-BD
Aquifer: Dawson
Applicant: Mark A. Ware and Linda G. Ware

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Dated this 24th day of July, 2018.

By: 

Kevin G. Rein, P.E.
Executive Director
Colorado Ground Water Commission



Keith Vander Horst, P.E.
Chief of Water Supply, Basins

Prepared by: nsm
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**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR DETERMINATION OF WATER RIGHT TO GROUND WATER IN
THE UPPER BLACK SQUIRREL CREEK DESIGNATED GROUND WATER BASIN

DETERMINATION NO.: 3556-BD

AQUIFER: Denver

APPLICANT: Mark A. Ware and Linda G. Ware

In compliance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Mark A. Ware and Linda G. Ware (hereinafter "Applicant") submitted an application for determination of water right to designated ground water from the Denver Aquifer.

FINDINGS

1. The application was received by the Colorado Ground Water Commission on January 24, 2017.
2. The Applicant requests a determination of right to designated ground water in the Denver Aquifer (hereinafter "Aquifer") underlying 19.98 acres, generally described as part of the N1/2 of the NW1/4 of Section 18, Township 12 South, Range 64 West of the 6th P.M, in El Paso County. According to a signed Ownership Statement dated January 13, 2017, attached hereto as Exhibit A, the Applicant owns the 19.98 acres of land, which are further described in said Ownership Statement (hereinafter "Overlying Land"), and claims control of the right to the ground water in the Aquifer underlying this land (hereinafter "Underlying Ground Water").
3. The Overlying Land is located within the boundaries of the Upper Black Squirrel Creek Designated Ground Water Basin and within the Upper Black Squirrel Creek Ground Water Management District. The Colorado Ground Water Commission (hereinafter "Commission") has jurisdiction over the ground water that is the subject of this Determination.
4. The Commission Staff has evaluated the application relying on the claims to control of the Underlying Ground Water in the Aquifer made by the Applicant.
5. The Applicant intends to apply the Underlying Ground Water to the following beneficial uses: domestic, irrigation, livestock watering, and replacement. The Applicant's proposed place of use of the Underlying Ground Water is the above described 19.98 acres of overlying land.
6. The application requests the maximum allowable annual amount of Underlying Ground Water from beneath the Overlying Land.
7. The quantity of water in the Aquifer underlying the 19.98 acres of Overlying Land claimed by the applicant is 1,020 acre-feet. This determination was based on the following as specified in the Designated Basin Rules:
 - a. The average specific yield of the saturated permeable material of the Aquifer beneath the Overlying Land that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 17 percent.

Aquifer: Denver

Applicant: Mark A. Ware and Linda G. Ware

- b. The average thickness of the saturated permeable material of the Aquifer beneath the Overlying Land that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 300 feet.
8. Pursuant to Section 37-90-107(7)(a), C.R.S., and in accordance with the Designated Basin Rules, the Commission shall allocate the underlying ground water based on ownership of the overlying land and an aquifer life of one hundred years. Should the entire quantity of underlying ground water identified above be available for allocation, the allowed average annual amount of withdrawal from the Aquifer that could be allocated from beneath the Overlying Land would be 10.2 acre-feet per year.
9. A review of the records in the Office of the State Engineer has disclosed that none of the Underlying Ground Water in the Aquifer beneath the Overlying Land has been previously allocated or permitted for withdrawal.
10. Pursuant to Section 37-90-107(7)(c)(III), C.R.S., an approved determination of water right shall be considered a final determination of the amount of ground water so determined; except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes.
11. The ability of wells permitted to withdraw the authorized amount of water from this non-renewable Aquifer may be less than the one hundred years upon which the amount of water in the Aquifer is allocated, due to anticipated water level declines.
12. In accordance with Rule 5.3.6 of the Designated Basin Rules, it has been determined that withdrawal of ground water from the Aquifer underlying the land claimed by the Applicant will, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and, therefore, the Underlying Ground Water is considered to be not-nontributary ground water. Also, the location of the land claimed by the Applicant is farther than one mile from the Aquifer contact with the alluvium. Pursuant to the Rules, at least four percent (4%) of the amount of the underlying water withdrawn annually must be returned to the uppermost aquifer in the vicinity of the permitted point or points of withdrawal, unless other locations are approved by the Commission.
13. On May 25, 2018, in accordance with Rule 9.1 of the Designated Basin Rules, a letter was sent to the Upper Black Squirrel Creek Ground Water Management District requesting written recommendations concerning this application. No written recommendations from the district were received.
14. In accordance with Sections 37-90-107(7)(c)(II) and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on May 31, 2018 and June 7, 2018. No objections to the application were received within the time limit set by statute.

ORDER

In accordance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, the Colorado Ground Water Commission orders that the application for determination of right to designated ground water in the Denver Aquifer underlying 19.98 acres of land, generally described

Aquifer: Denver

Applicant: Mark A. Ware and Linda G. Ware


as part of the N1/2 of the NW1/4 of Section 18, Township 12 South, Range 64 West of the 6th P.M, further described in Exhibit A, is approved subject to the following conditions:

15. The allowed average annual amount of withdrawal of Underlying Ground Water from the Aquifer shall not exceed 10.2 acre-feet.
16. The total volume of Underlying Ground Water that may be withdrawn from the Aquifer pursuant to this Determination of Water Right shall not exceed 1,020 acre-feet.
17. The Commission may adjust the total volume and the allowed average annual amount of withdrawal of Underlying Ground Water that may be withdrawn from the Aquifer to conform to actual Aquifer characteristics based on analysis of geophysical logs or other site-specific data if such analysis indicates that the initial estimate of the amount of Underlying Ground Water in the Aquifer was incorrect.
18. The allowed maximum annual amount of withdrawal may exceed the allowed average annual amount of withdrawal as long as the total volume of Underlying Ground Water withdrawn does not exceed the product of the number of years since the date of approval of this determination times the allowed average annual amount of withdrawal.
19. The Applicant may pump the allowed average annual amount of withdrawal and the allowed maximum annual amount of withdrawal from one or more wells of a well field in any combination, so long as the total combined withdrawal of the wells does not exceed the amounts described in this Order.
20. At least four percent (4%) of the allowed amount of Underlying Ground Water withdrawn annually must be returned to the uppermost aquifer in the vicinity of the permitted point or points of withdrawal, unless other locations are approved by the Commission.
21. The use of the allowed amount of Underlying Ground Water from this allocation shall be limited to the following beneficial uses: domestic, irrigation, livestock watering, and replacement. The place of use shall be limited to the above described 19.98 acres of Overlying Land. The ground water that is the subject of this Determination may be reused and successively used to extinction to the extent dominion and control over the water is maintained and its volume can be distinguished from the volume of any stream system into which it is introduced to the satisfaction of the Commission. The ground water right determined herein is located within the Upper Black Squirrel Creek Ground Water Management District where local District rules apply which may further limit the withdrawal and use of the subject designated ground water.
22. Approval of this determination meets the requirements of Section 37-90-107(7)(d)(II) that requires a determination of ground water be made prior to the granting of a well permit pursuant to Section 37-90-107(7).
23. Wells withdrawing the allowed amount of Underlying Ground Water allocated herein are subject to the following conditions:
 - a. The wells must be located on the above described 19.98 acres of Overlying Land.
 - b. No well shall be located within 600 feet of any existing large-capacity well in the same Aquifer unless a Waiver of Claim of Injury is obtained from the owner of the existing well

- or unless the Commission, after a hearing, finds that circumstances in a particular instance warrant that a well may be permitted without regard to this limitation.
- c. The wells must be constructed to withdraw water from only the Denver Aquifer.
 - d. The entire depth of each well must be geophysically logged prior to installing the casing as forth in Rule 9 of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7.
 - e. A totalizing flow meter or other Commission approved measuring device shall be installed on each well and maintained in good working order by the well owner. Annual diversion records shall be collected and permanently maintained by the well owner and submitted to the Commission and the Upper Black Squirrel Creek Ground Water Management District upon request.
 - f. The well shall be marked in a conspicuous place with this determination number, the well permit number, and the name of the Aquifer. The well owner shall take necessary means and precautions to preserve these markings.
24. A copy of this Findings and Order shall be recorded by the Applicant in the public records of the county in which the Overlying Land is located so that a title examination of the above described 19.98 acres of Overlying Land area, or any part thereof, shall reveal the existence of this determination.
25. The ground water right determined herein is a vested property right with specific ownership. The ground water right may be transferred independent of the land under which the right originated. Any action taken that is intended to convey, transfer, and/or sell the subject water right shall explicitly identify this Determination of Water Right number, the specific aquifer, and the annual volume (based on a 100-year aquifer life) or total volume of ground water that is being conveyed.

Dated this 24th day of July, 2018.

By: 
Kevin G. Rein, P.E.
Executive Director
Colorado Ground Water Commission


Keith Vander Horst, P.E.
Chief of Water Supply, Basins

Prepared by: nsm
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**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR DETERMINATION OF WATER RIGHT TO GROUND WATER IN
THE UPPER BLACK SQUIRREL CREEK DESIGNATED GROUND WATER BASIN

DETERMINATION NO.: 3555-BD

AQUIFER: Arapahoe

APPLICANT: Mark A. Ware and Linda G. Ware

In compliance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Mark A. Ware and Linda G. Ware (hereinafter "Applicant") submitted an application for determination of water right to designated ground water from the Arapahoe Aquifer.

FINDINGS

1. The application was received by the Colorado Ground Water Commission on January 24, 2017.
2. The Applicant requests a determination of right to designated ground water in the Arapahoe Aquifer (hereinafter "Aquifer") underlying 19.98 acres, generally described as part of the N1/2 of the NW1/4 of Section 18, Township 12 South, Range 64 West of the 6th P.M, in El Paso County. According to a signed Ownership Statement dated January 13, 2017, attached hereto as Exhibit A, the Applicant owns the 19.98 acres of land, which are further described in said Ownership Statement (hereinafter "Overlying Land"), and claims control of the right to the ground water in the Aquifer underlying this land (hereinafter "Underlying Ground Water").
3. The Overlying Land is located within the boundaries of the Upper Black Squirrel Creek Designated Ground Water Basin and within the Upper Black Squirrel Creek Ground Water Management District. The Colorado Ground Water Commission (hereinafter "Commission") has jurisdiction over the ground water that is the subject of this Determination.
4. The Commission Staff has evaluated the application relying on the claims to control of the Underlying Ground Water in the Aquifer made by the Applicant.
5. The Applicant intends to apply the Underlying Ground Water to the following beneficial uses: domestic, irrigation, livestock watering, and replacement. The Applicant's proposed place of use of the Underlying Ground Water is the above described 19.98 acres of overlying land.
6. The application requests the maximum allowable annual amount of Underlying Ground Water from beneath the Overlying Land.
7. The quantity of water in the Aquifer underlying the 19.98 acres of Overlying Land claimed by the applicant is 764 acre-feet. This determination was based on the following as specified in the Designated Basin Rules:
 - a. The average specific yield of the saturated permeable material of the Aquifer beneath the Overlying Land that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 17 percent.

- b. The average thickness of the saturated permeable material of the Aquifer beneath the Overlying Land that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 225 feet.
8. Pursuant to Section 37-90-107(7)(a), C.R.S., and in accordance with the Designated Basin Rules, the Commission shall allocate the underlying ground water based on ownership of the overlying land and an aquifer life of one hundred years. Should the entire quantity of underlying ground water identified above be available for allocation, the allowed average annual amount of withdrawal from the Aquifer that could be allocated from beneath the Overlying Land would be 7.64 acre-feet per year.
9. A review of the records in the Office of the State Engineer has disclosed that none of the Underlying Ground Water in the Aquifer beneath the Overlying Land has been previously allocated or permitted for withdrawal.
10. Pursuant to Section 37-90-107(7)(c)(III), C.R.S., an approved determination of water right shall be considered a final determination of the amount of ground water so determined; except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes.
11. The ability of wells permitted to withdraw the authorized amount of water from this non-renewable Aquifer may be less than the one hundred years upon which the amount of water in the Aquifer is allocated, due to anticipated water level declines.
12. In accordance with Rule 5.3.6 of the Designated Basin Rules, it has been determined that withdrawal of ground water from the Aquifer underlying the land claimed by the Applicant will not, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and, therefore, the Underlying Ground Water is nontributary ground water as defined in Rule 4.2.19 of the Designated Basin Rules. Pursuant to the Rules, no more than 98% of the amount of the Underlying Ground Water withdrawn annually shall be consumed.
13. On May 25, 2018, in accordance with Rule 9.1 of the Designated Basin Rules, a letter was sent to the Upper Black Squirrel Creek Ground Water Management District requesting written recommendations concerning this application. No written recommendations from the district were received.
14. In accordance with Sections 37-90-107(7)(c)(II) and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on May 31, 2018 and June 7, 2018. No objections to the application were received within the time limit set by statute.

ORDER


In accordance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, the Colorado Ground Water Commission orders that the application for determination of right to designated ground water in the Arapahoe Aquifer underlying 19.98 acres of land, generally described as part of the N1/2 of the NW1/4 of Section 18, Township 12 South, Range 64 West of the 6th P.M, further described in Exhibit A, is approved subject to the following conditions:

15. The allowed average annual amount of withdrawal of Underlying Ground Water from the Aquifer shall not exceed 7.64 acre-feet.
16. The total volume of Underlying Ground Water that may be withdrawn from the Aquifer pursuant to this Determination of Water Right shall not exceed 764 acre-feet.
17. The Commission may adjust the total volume and the allowed average annual amount of withdrawal of Underlying Ground Water that may be withdrawn from the Aquifer to conform to actual Aquifer characteristics based on analysis of geophysical logs or other site-specific data if such analysis indicates that the initial estimate of the amount of Underlying Ground Water in the Aquifer was incorrect.
18. The allowed maximum annual amount of withdrawal may exceed the allowed average annual amount of withdrawal as long as the total volume of Underlying Ground Water withdrawn does not exceed the product of the number of years since the date of approval of this determination times the allowed average annual amount of withdrawal.
19. The Applicant may pump the allowed average annual amount of withdrawal and the allowed maximum annual amount of withdrawal from one or more wells of a well field in any combination, so long as the total combined withdrawal of the wells does not exceed the amounts described in this Order.
20. No more than 98% of the allowed amount of Underlying Ground Water withdrawn annually shall be consumed. The Commission may require well owners to demonstrate periodically that no more than 98% of the underlying ground water withdrawn is being consumed.
21. The use of the allowed amount of Underlying Ground Water from this allocation shall be limited to the following beneficial uses: domestic, irrigation, livestock watering, and replacement. The place of use shall be limited to the above described 19.98 acres of Overlying Land. The ground water that is the subject of this Determination may be reused and successively used to extinction to the extent dominion and control over the water is maintained and its volume can be distinguished from the volume of any stream system into which it is introduced to the satisfaction of the Commission. The ground water right determined herein is located within the Upper Black Squirrel Creek Ground Water Management District where local District rules apply which may further limit the withdrawal and use of the subject designated ground water.
22. Approval of this determination meets the requirements of Section 37-90-107(7)(d)(II) that requires a determination of ground water be made prior to the granting of a well permit pursuant to Section 37-90-107(7).
23. Wells withdrawing the allowed amount of Underlying Ground Water allocated herein are subject to the following conditions:
 - a. The wells must be located on the above described 19.98 acres of Overlying Land.
 - b. No well shall be located within 600 feet of any existing large-capacity well in the same Aquifer unless a Waiver of Claim of Injury is obtained from the owner of the existing well or unless the Commission, after a hearing, finds that circumstances in a particular instance warrant that a well may be permitted without regard to this limitation.

- c. The wells must be constructed to withdraw water from only the Arapahoe Aquifer.
 - d. The entire depth of each well must be geophysically logged prior to installing the casing as forth in Rule 9 of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7.
 - e. A totalizing flow meter or other Commission approved measuring device shall be installed on each well and maintained in good working order by the well owner. Annual diversion records shall be collected and permanently maintained by the well owner and submitted to the Commission and the Upper Black Squirrel Creek Ground Water Management District upon request.
 - f. The well shall be marked in a conspicuous place with this determination number, the well permit number, and the name of the Aquifer. The well owner shall take necessary means and precautions to preserve these markings.
24. A copy of this Findings and Order shall be recorded by the Applicant in the public records of the county in which the Overlying Land is located so that a title examination of the above described 19.98 acres of Overlying Land area, or any part thereof, shall reveal the existence of this determination.
25. The ground water right determined herein is a vested property right with specific ownership. The ground water right may be transferred independent of the land under which the right originated. Any action taken that is intended to convey, transfer, and/or sell the subject water right shall explicitly identify this Determination of Water Right number, the specific aquifer, and the annual volume (based on a 100-year aquifer life) or total volume of ground water that is being conveyed.

Dated this 24th day of July, 2018.

By: 
Kevin G. Rein, P.E.
Executive Director
Colorado Ground Water Commission


Keith Vander Horst, P.E.
Chief of Water Supply, Basins

Prepared by: nsm
F&O3555-BD.doc

**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR DETERMINATION OF WATER RIGHT TO GROUND WATER IN
THE UPPER BLACK SQUIRREL CREEK DESIGNATED GROUND WATER BASIN

DETERMINATION NO.: 3554-BD

AQUIFER: Laramie-Fox Hills

APPLICANT: Mark A. Ware and Linda G. Ware

In compliance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Mark A. Ware and Linda G. Ware (hereinafter "Applicant") submitted an application for determination of water right to designated ground water from the Laramie-Fox Hills Aquifer.

FINDINGS

1. The application was received by the Colorado Ground Water Commission on January 24, 2017.
2. The Applicant requests a determination of right to designated ground water in the Laramie-Fox Hills Aquifer (hereinafter "Aquifer") underlying 19.98 acres, generally described as part of the N1/2 of the NW1/4 of Section 18, Township 12 South, Range 64 West of the 6th P.M, in El Paso County. According to a signed Ownership Statement dated January 13, 2017, attached hereto as Exhibit A, the Applicant owns the 19.98 acres of land, which are further described in said Ownership Statement (hereinafter "Overlying Land"), and claims control of the right to the ground water in the Aquifer underlying this land (hereinafter "Underlying Ground Water").
3. The Overlying Land is located within the boundaries of the Upper Black Squirrel Creek Designated Ground Water Basin and within the Upper Black Squirrel Creek Ground Water Management District. The Colorado Ground Water Commission (hereinafter "Commission") has jurisdiction over the ground water that is the subject of this Determination.
4. The Commission Staff has evaluated the application relying on the claims to control of the Underlying Ground Water in the Aquifer made by the Applicant.
5. The Applicant intends to apply the Underlying Ground Water to the following beneficial uses: domestic, irrigation, livestock watering, and replacement. The Applicant's proposed place of use of the Underlying Ground Water is the above described 19.98 acres of overlying land.
6. The application requests the maximum allowable annual amount of Underlying Ground Water from beneath the Overlying Land.
7. The quantity of water in the Aquifer underlying the 19.98 acres of Overlying Land claimed by the applicant is 599 acre-feet. This determination was based on the following as specified in the Designated Basin Rules:
 - a. The average specific yield of the saturated permeable material of the Aquifer beneath the Overlying Land that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 15 percent.

- b. The average thickness of the saturated permeable material of the Aquifer beneath the Overlying Land that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 200 feet.
8. Pursuant to Section 37-90-107(7)(a), C.R.S., and in accordance with the Designated Basin Rules, the Commission shall allocate the underlying ground water based on ownership of the overlying land and an aquifer life of one hundred years. Should the entire quantity of underlying ground water identified above be available for allocation, the allowed average annual amount of withdrawal from the Aquifer that could be allocated from beneath the Overlying Land would be 5.99 acre-feet per year.
9. A review of the records in the Office of the State Engineer has disclosed that none of the Underlying Ground Water in the Aquifer beneath the Overlying Land has been previously allocated or permitted for withdrawal.
10. Pursuant to Section 37-90-107(7)(c)(III), C.R.S., an approved determination of water right shall be considered a final determination of the amount of ground water so determined; except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes.
11. The ability of wells permitted to withdraw the authorized amount of water from this non-renewable Aquifer may be less than the one hundred years upon which the amount of water in the Aquifer is allocated, due to anticipated water level declines.
12. In accordance with Rule 5.3.6 of the Designated Basin Rules, it has been determined that withdrawal of ground water from the Aquifer underlying the land claimed by the Applicant will not, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and, therefore, the Underlying Ground Water is nontributary ground water as defined in Rule 4.2.19 of the Designated Basin Rules. Pursuant to the Rules, no more than 98% of the amount of the Underlying Ground Water withdrawn annually shall be consumed.
13. On May 25, 2018, in accordance with Rule 9.1 of the Designated Basin Rules, a letter was sent to the Upper Black Squirrel Creek Ground Water Management District requesting written recommendations concerning this application. No written recommendations from the district were received.
14. In accordance with Sections 37-90-107(7)(c)(II) and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on May 31, 2018 and June 7, 2018. No objections to the application were received within the time limit set by statute.

ORDER


In accordance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, the Colorado Ground Water Commission orders that the application for determination of right to designated ground water in the Laramie-Fox Hills Aquifer underlying 19.98 acres of land, generally described as part of the N1/2 of the NW1/4 of Section 18, Township 12 South, Range 64 West of the 6th P.M, further described in Exhibit A, is approved subject to the following conditions:

15. The allowed average annual amount of withdrawal of Underlying Ground Water from the Aquifer shall not exceed 5.99 acre-feet.
16. The total volume of Underlying Ground Water that may be withdrawn from the Aquifer pursuant to this Determination of Water Right shall not exceed 599 acre-feet.
17. The Commission may adjust the total volume and the allowed average annual amount of withdrawal of Underlying Ground Water that may be withdrawn from the Aquifer to conform to actual Aquifer characteristics based on analysis of geophysical logs or other site-specific data if such analysis indicates that the initial estimate of the amount of Underlying Ground Water in the Aquifer was incorrect.
18. The allowed maximum annual amount of withdrawal may exceed the allowed average annual amount of withdrawal as long as the total volume of Underlying Ground Water withdrawn does not exceed the product of the number of years since the date of approval of this determination times the allowed average annual amount of withdrawal.
19. The Applicant may pump the allowed average annual amount of withdrawal and the allowed maximum annual amount of withdrawal from one or more wells of a well field in any combination, so long as the total combined withdrawal of the wells does not exceed the amounts described in this Order.
20. No more than 98% of the allowed amount of Underlying Ground Water withdrawn annually shall be consumed. The Commission may require well owners to demonstrate periodically that no more than 98% of the underlying ground water withdrawn is being consumed.
21. The use of the allowed amount of Underlying Ground Water from this allocation shall be limited to the following beneficial uses: domestic, irrigation, livestock watering, and replacement. The place of use shall be limited to the above described 19.98 acres of Overlying Land. The ground water that is the subject of this Determination may be reused and successively used to extinction to the extent dominion and control over the water is maintained and its volume can be distinguished from the volume of any stream system into which it is introduced to the satisfaction of the Commission. The ground water right determined herein is located within the Upper Black Squirrel Creek Ground Water Management District where local District rules apply which may further limit the withdrawal and use of the subject designated ground water.
22. Approval of this determination meets the requirements of Section 37-90-107(7)(d)(II) that requires a determination of ground water be made prior to the granting of a well permit pursuant to Section 37-90-107(7).
23. Wells withdrawing the allowed amount of Underlying Ground Water allocated herein are subject to the following conditions:
 - a. The wells must be located on the above described 19.98 acres of Overlying Land.
 - b. No well shall be located within 600 feet of any existing large-capacity well in the same Aquifer unless a Waiver of Claim of Injury is obtained from the owner of the existing well or unless the Commission, after a hearing, finds that circumstances in a particular instance warrant that a well may be permitted without regard to this limitation.

- c. The wells must be constructed to withdraw water from only the Laramie-Fox Hills Aquifer.
 - d. The entire depth of each well must be geophysically logged prior to installing the casing as forth in Rule 9 of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7.
 - e. A totalizing flow meter or other Commission approved measuring device shall be installed on each well and maintained in good working order by the well owner. Annual diversion records shall be collected and permanently maintained by the well owner and submitted to the Commission and the Upper Black Squirrel Creek Ground Water Management District upon request.
 - f. The well shall be marked in a conspicuous place with this determination number, the well permit number, and the name of the Aquifer. The well owner shall take necessary means and precautions to preserve these markings.
24. A copy of this Findings and Order shall be recorded by the Applicant in the public records of the county in which the Overlying Land is located so that a title examination of the above described 19.98 acres of Overlying Land area, or any part thereof, shall reveal the existence of this determination.
25. The ground water right determined herein is a vested property right with specific ownership. The ground water right may be transferred independent of the land under which the right originated. Any action taken that is intended to convey, transfer, and/or sell the subject water right shall explicitly identify this Determination of Water Right number, the specific aquifer, and the annual volume (based on a 100-year aquifer life) or total volume of ground water that is being conveyed.

Dated this 24th day of July, 2018.

By: 
Kevin G. Rein, P.E.
Executive Director
Colorado Ground Water Commission


Keith Vander Horst, P.E.
Chief of Water Supply, Basins

Prepared by: nsm
F&O3554-BD.doc



APPENDIX D

WATER QUALITY RESULTS





240723125

INVOICE #:	240723125
Invoice Date:	Aug 7, 2024
Date Received:	Jul 23, 2024

Bill To
RESPEC Company, LLC
Accounts Payable
5540 Tech Center Drive
Suite 100
Colorado Springs CO 80919

Original Results To
RESPEC Company, LLC
Jack Costello
5540 Tech Center Drive
Suite 100
Colorado Springs CO 80919

Client Project Name: Marshall Water	Task Number: 240723125	Customer PO:
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Quantity	Item	Description	Unit Price	Extension
10	Water - Ground	Chloride	\$18.00	\$180.00
10	Water - Ground	DOC	\$37.00	\$370.00
10	Water - Ground	Langelier Index	\$60.00	\$600.00
10	Water - Ground	Oil & Grease	\$65.00	\$650.00
10	Water - Ground	Specific Conductance	\$14.00	\$140.00
10	Water - Ground	Sulfate	\$18.00	\$180.00
10	Water - Ground	Sulfide	\$35.00	\$350.00
10	Water - Ground	TOC	\$37.00	\$370.00
10	Water - Ground	Total Metals By ICP-MS	\$32.00	\$320.00
10	Water - Ground	Total Metals By OES	\$39.00	\$390.00
1	Shipping	Cooler Shipment - UPS	\$15.00	\$15.00
Thank You! We Appreciate Your Business.			Total:	\$3,565.00

Payment Terms: Net 30

****Updated****
Remit Payment To: Colorado Analytical Lab
10411 Heinz Way
Commerce City, CO 80640

*****Mastercard and VISA Accepted*****

Invoices and results are sent via email only. If you have questions please call 303-659-2313.
Records associated with samples submitted will be retained for 5 years from the date received.

10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313

Analytical Results

TASK NO: 240403015

Report To: Brian Elkins
Company: RESPEC Company, LLC
5540 Tech Center Drive
Suite 100
Colorado Springs CO 80919

Bill To: Accounts Payable
Company: RESPEC Company, LLC
5540 Tech Center Drive
Suite 100
Colorado Springs CO 80919

Task No.: 240403015	Date Received: 4/3/24
Client PO:	Date Reported: 4/10/24
Client Project: Knecht Property	Matrix: Water - Drinking

Customer Sample ID #2
Sample Date/Time: 4/2/24 10:22 AM
Lab Number: 240403015-01

Test	Result	Method	RL	MCL	Date Analyzed	QC Batch ID	Analyzed By
Total Coliform	ND mpn/100ml	Colilert	1 mpn/100ml		4/4/24		NRP
Chloride	9.6 mg/L	EPA 300.0	0.1 mg/L	250	4/3/24	QC72432	AMJ
Fluoride	ND mg/L	EPA 300.0	0.10 mg/L	4	4/3/24	QC72433	AMJ
Nitrate Nitrogen	ND mg/L	EPA 300.0	0.05 mg/L	10	4/3/24	QC72430	AMJ
Nitrite Nitrogen	ND mg/L	EPA 300.0	0.03 mg/L	1	4/3/24	QC72431	AMJ
Sulfate	7.8 mg/L	EPA 300.0	0.1 mg/L	250	4/3/24	QC72434	AMJ
Cyanide-Total	ND mg/L	EPA 335.4	0.005 mg/L		4/4/24	QC72418	KRB
Total							
Iron	0.130 mg/L	EPA 200.7	0.005 mg/L		4/5/24	QC72460	MBN
Aluminum	0.002 mg/L	EPA 200.8	0.001 mg/L	0.05	4/5/24	QC72464	MBN
Antimony	ND mg/L	EPA 200.8	0.0012 mg/L	0.006	4/5/24	QC72464	MBN
Arsenic	ND mg/L	EPA 200.8	0.0006 mg/L	0.01	4/5/24	QC72464	MBN
Barium	0.1521 mg/L	EPA 200.8	0.0007 mg/L	2	4/5/24	QC72464	MBN
Beryllium	ND mg/L	EPA 200.8	0.0001 mg/L	0.004	4/5/24	QC72464	MBN
Cadmium	ND mg/L	EPA 200.8	0.0001 mg/L	0.005	4/5/24	QC72464	MBN
Chromium	ND mg/L	EPA 200.8	0.0015 mg/L	0.1	4/5/24	QC72464	MBN
Manganese	0.1134 mg/L	EPA 200.8	0.0008 mg/L	0.05	4/5/24	QC72464	MBN
Mercury	ND mg/L	EPA 200.8	0.0001 mg/L	0.002	4/5/24	QC72464	MBN
Selenium	ND mg/L	EPA 200.8	0.0008 mg/L		4/5/24	QC72464	MBN
Silver	ND mg/L	EPA 200.8	0.0005 mg/L	0.1	4/5/24	QC72464	MBN

Abbreviations/ References:

RL = Reporting Limit = Minimum Level
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

MCL = Maximum contaminant level per the EPA
ND = Not Detected at Reporting Limit.

Analytical Results

TASK NO: 240403015

Report To: Brian Elkins

Company: RESPEC Company, LLC
5540 Tech Center Drive
Suite 100
Colorado Springs CO 80919

Bill To: Accounts Payable

Company: RESPEC Company, LLC
5540 Tech Center Drive
Suite 100
Colorado Springs CO 80919

Task No.: 240403015	Date Received: 4/3/24
Client PO:	Date Reported: 4/10/24
Client Project: Knecht Property	Matrix: Water - Drinking

Customer Sample ID #2
Sample Date/Time: 4/2/24 10:22 AM
Lab Number: 240403015-01

Test	Result	Method	RL	MCL	Date Analyzed	QC Batch ID	Analyzed By
<u>Total</u>							
Thallium	ND mg/L	EPA 200.8	0.0002 mg/L	0.002	4/5/24	QC72464	MBN
Zinc	0.016 mg/L	EPA 200.8	0.001 mg/L	5	4/5/24	QC72464	MBN

Abbreviations/ References:

RL = Reporting Limit = Minimum Level
 mg/L = Milligrams Per Liter or PPM
 ug/L = Micrograms Per Liter or PPB
 mpr/100 mls = Most Probable Number Index/ 100 mls
 Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
 (s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

MCL = Maximum contaminant level per the EPA
 ND = Not Detected at Reporting Limit.

Report To: Brian Elkins
Company: RESPEC Company, LLC

Receive Date: 4/3/24
Project Name: Knecht Property

Test	QC Batch ID	QC Type	Result	Method	Prep Date
Chloride	QC72432	Blank	ND	EPA 300.0	4/3/24
Cyanide-Total	QC72418	Blank	ND	EPA 335.4	4/3/24
Fluoride	QC72433	Blank	ND	EPA 300.0	4/3/24
Aluminum	QC72464	Method Blank	ND	EPA 200.8	4/3/24
Antimony	QC72464	Method Blank	ND	EPA 200.8	4/3/24
Arsenic	QC72464	Method Blank	ND	EPA 200.8	4/3/24
Barium	QC72464	Method Blank	ND	EPA 200.8	4/3/24
Beryllium	QC72464	Method Blank	ND	EPA 200.8	4/3/24
Cadmium	QC72464	Method Blank	ND	EPA 200.8	4/3/24
Chromium	QC72464	Method Blank	ND	EPA 200.8	4/3/24
Manganese	QC72464	Method Blank	ND	EPA 200.8	4/3/24
Mercury	QC72464	Method Blank	ND	EPA 200.8	4/3/24
Selenium	QC72464	Method Blank	ND	EPA 200.8	4/3/24
Silver	QC72464	Method Blank	ND	EPA 200.8	4/3/24
Thallium	QC72464	Method Blank	ND	EPA 200.8	4/3/24
Zinc	QC72464	Method Blank	ND	EPA 200.8	4/3/24
Iron	QC72460	Method Blank	ND	EPA 200.7	4/5/24
Nitrate Nitrogen	QC72430	Blank	ND	EPA 300.0	4/3/24
Nitrite Nitrogen	QC72431	Blank	ND	EPA 300.0	4/3/24
Sulfate	QC72434	Blank	ND	EPA 300.0	4/3/24

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Chloride	QC72432	Duplicate	0 - 20	-	0.2	EPA 300.0
		LCS	90 - 110	103.3	-	
		MS	75 - 125	104.7	-	
Cyanide-Total	QC72418	Duplicate	0 - 20	-	0.0	EPA 335.4
		LCS	90 - 110	99.0	-	
		MS	75 - 125	87.0	-	
Fluoride	QC72433	Duplicate	0 - 20	-	1.8	EPA 300.0
		LCS	90 - 110	99.5	-	
		MS	75 - 125	99.3	-	
Aluminum	QC72464	LCS	90 - 110	105.8	-	EPA 200.8
		MS	70 - 130	122.9	-	
		MSD	0 - 10	-	0.2	
Antimony	QC72464	LCS	90 - 110	93.6	-	EPA 200.8
		MS	70 - 130	117.1	-	
		MSD	0 - 10	-	7.0	
Arsenic	QC72464	LCS	90 - 110	94.9	-	EPA 200.8
		MS	70 - 130	121.7	-	
		MSD	0 - 10	-	1.6	
Barium	QC72464	LCS	90 - 110	94.3	-	EPA 200.8

Abbreviations/ References:

RL = Reporting Limit = Minimum Level
 mg/L = Milligrams Per Liter or PPM
 ug/L = Micrograms Per Liter or PPB
 mpr/100 mls = Most Probable Number Index/ 100 mls
 Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
 (s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

MCL = Maximum contaminant level per the EPA
 ND = Not Detected at Reporting Limit.

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Beryllium	QC72464	MS	70 - 130	104.8	-	EPA 200.8
		MSD	0 - 10	-	7.1	
		LCS	90 - 110	100.5	-	
Cadmium	QC72464	MS	70 - 130	100.7	-	EPA 200.8
		MSD	0 - 10	-	3.6	
		LCS	90 - 110	91.4	-	
Chromium	QC72464	MS	70 - 130	115.8	-	EPA 200.8
		MSD	0 - 10	-	1.2	
		LCS	90 - 110	96.3	-	
Manganese	QC72464	MS	70 - 130	96.6	-	EPA 200.8
		MSD	0 - 10	-	1.0	
		LCS	90 - 110	96.2	-	
Mercury	QC72464	MS	70 - 130	110.8	-	EPA 200.8
		MSD	0 - 10	-	6.3	
		LCS	90 - 110	106.9	-	
Selenium	QC72464	MS	70 - 130	95.9	-	EPA 200.8
		MSD	0 - 10	-	2.9	
		LCS	90 - 110	93.1	-	
Silver	QC72464	MS	70 - 130	117.9	-	EPA 200.8
		MSD	0 - 10	-	4.7	
		LCS	90 - 110	106.9	-	
Thallium	QC72464	MS	70 - 130	89.5	-	EPA 200.8
		MSD	0 - 10	-	0.7	
		LCS	90 - 110	101.3	-	
Zinc	QC72464	MS	70 - 130	98.0	-	EPA 200.8
		MSD	0 - 10	-	2.6	
		LCS	90 - 110	93.9	-	
Iron	QC72460	MS	70 - 130	115.4	-	EPA 200.8
		MSD	0 - 10	-	6.6	
		Duplicate	0 - 20	-	14.0	
Nitrate Nitrogen	QC72430	LCS	90 - 110	99.6	-	EPA 200.7
		MS	75 - 125	98.4	-	
		Duplicate	0 - 20	-	1.5	
Nitrite Nitrogen	QC72431	LCS	90 - 110	100.3	-	EPA 300.0
		MS	75 - 125	94.3	-	
		Duplicate	0 - 20	-	0.0	
Sulfate	QC72434	LCS	90 - 110	96.0	-	EPA 300.0
		MS	75 - 125	95.9	-	
		Duplicate	0 - 20	-	0.4	
		LCS	90 - 110	101.2	-	EPA 300.0
		MS	75 - 125	100.7	-	
		Duplicate	0 - 20	-	0.4	

All analyses were performed in accordance with approved methods under the latest revision to 40 CFR Part 136 unless otherwise identified. Based on my inquiry of the person or persons directly responsible for analyzing the wastewater samples and generating the report (s), the analyses, report, and information submitted are, to the best of my knowledge and belief, true, accurate, and complete.



DATA APPROVED FOR RELEASE BY

Abbreviations/ References:

RL = Reporting Limit = Minimum Level
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpr/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

MCL = Maximum contaminant level per the EPA
ND = Not Detected at Reporting Limit.

JAK

EPC Confined Aquifer Sampling Requirements

Field Measurements

pH

Temp

Radionuclides

Radium 226 and Radium 228

Gross alpha/Beta

Inorganics

Antimony

Arsenic

Barium

Beryllium

Cadmium

Chromium

Cyanide (Total)

Fluoride

Mercury

Nitrate

Nitrite

Selenium

Thallium

Secondary MCLs

Aluminum

Chloride

Corrosivity

Iron

Manganese

Silver

Sulfate

Zinc

TDS

Bacteriological:

Total Coliform

Analytical Results

TASK NO: 240403015

Report To: Brian Elkins

Bill To: Accounts Payable

Company: RESPEC Company, LLC
5540 Tech Center Drive
Suite 100
Colorado Springs CO 80919

Company: RESPEC Company, LLC
5540 Tech Center Drive
Suite 100
Colorado Springs CO 80919

Task No.: 240403015
Client PO:
Client Project: Knecht Property

Date Received: 4/3/24
Date Reported: 4/10/24
Matrix: Water - Drinking

Customer Sample ID #2
Sample Date/Time: 4/2/24 10:22 AM
Lab Number: 240403015-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	48.6 mg/L as CaCO ₃	SM 2320-B	0.2 mg/L as CaCO ₃	4/5/24	-	DPL
Calcium as CaCO ₃	43.4 mg/L	EPA 200.7	0.1 mg/L	4/5/24	-	MBN
Carbonate	ND mg/L as CaCO ₃	SM 2320-B	0.2 mg/L as CaCO ₃	4/5/24	-	DPL
Hydroxide	ND mg/L as CaCO ₃	SM 2320-B	0.2 mg/L as CaCO ₃	4/5/24	-	DPL
Langelier Index	-1.75 units	SM 2330-B	units	4/9/24	-	DPL
pH	6.88 units	SM 4500-H-B	0.01 units	4/3/24	-	Sampler
Temperature	11 °C	SM 4500-H-B	1 °C	4/3/24	-	Sampler
Total Alkalinity	48.6 mg/L as CaCO ₃	SM 2320-B	4.0 mg/L as CaCO ₃	4/5/24	QC72484	DPL
Total Dissolved Solids	125 mg/L	SM 2540-C	5 mg/L	4/4/24	QC72454	ISG

Abbreviations/ References:

RL = Reporting Limit = Minimum Level
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 ml = Most Probable Number Index/ 100 ml
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
(s) Spike amount low relative to the sample amount.
ND = Not Detected at Reporting Limit.

Report To: Brian Elkins
Company: RESPEC Company, LLC

Receive Date: 4/3/24
Project Name: Knecht Property

Test	QC Batch ID	QC Type	Result	Method	Prep Date
Total Alkalinity	QC72484	Blank	ND	SM 2320-B	4/5/24
Total Dissolved Solids	QC72454	Blank	ND	SM 2540-C	4/4/24

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Total Alkalinity	QC72484	Duplicate	0 - 20	-	3.0	SM 2320-B
		LCS	90 - 110	99.6	-	
		LCS-2	90 - 110	96.2	-	
Total Dissolved Solids	QC72454	Duplicate	0 - 10	-	3.2	SM 2540-C
		LCS	85 - 115	106.3	-	

All analyses were performed in accordance with approved methods under the latest revision to 40 CFR Part 136 unless otherwise identified. Based on my inquiry of the person or persons directly responsible for analyzing the wastewater samples and generating the report (s), the analyses, report, and information submitted are, to the best of my knowledge and belief, true, accurate, and complete.



DATA APPROVED FOR RELEASE BY

Abbreviations/ References:

RL = Reporting Limit = Minimum Level
 mg/L = Milligrams Per Liter or PPM
 ug/L = Micrograms Per Liter or PPB
 mpn/100 ml's = Most Probable Number Index/ 100 ml's
 Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
 (s) Spike amount low relative to the sample amount.
 ND = Not Detected at Reporting Limit.

Chain of Custody Form



Commerce City Lab
10411 Heinz Way
Commerce City CO 80640

Lakewood Service Center
610 Garrison Street, Unit E
Lakewood CO 80215

Phone: 303-659-2313

www.coloradolab.com

Report To Information		Bill To Information (If different from report to)		Project Name / Number	
Company Name: <u>Respec</u>		Company Name: _____		<u>Knecht Property</u>	
Contact Name: <u>Brian Elkins</u>		Contact Name: _____			
Address: <u>5540 Tech Center Dr. suite 100</u>		Address: _____		Task Number (Lab Use Only) CAL Task 240403015 JAK	
City: <u>CO springs</u> State: <u>CO</u> Zip: <u>80919</u>		City: _____ State: _____ Zip: _____			
Phone: <u>719-227-0072</u>		Phone: _____			
Email: <u>Brian.Elkins@Respec.com</u>		Email: _____			
Sample Collector: <u>Brian Elkins</u>		PO No.: _____			
Sample Collector Phone: <u>719-433-2652</u>					

Sample Matrix (Select One Only)				No. of Containers	Grab or (Check One Only) Composite	Tests Requested											
Waste Water <input type="checkbox"/>		Soil <input type="checkbox"/>				Drinking Water <input checked="" type="checkbox"/>											
Ground Water <input type="checkbox"/>		Sludge <input type="checkbox"/>															
Surface Water <input type="checkbox"/>																	
Date	Time	Sample ID															
<u>4/2/24</u>	<u>10:22am</u>	<u>#2</u>		<u>10</u>	<input checked="" type="checkbox"/>												
Field tests pH: <u>6.88</u> Temp: <u>10.9 °C</u>																	
Extra 250ml container received. <u>4/3/24</u>																	

Instructions: <u>Please analyze for constituents listed on attached document</u>				C/S Info: <u>Fedex</u>		Seals Present Yes <input type="checkbox"/> No <input type="checkbox"/>	
Relinquished By: <u>Brian Elkins</u>		Date/Time: <u>4/2/24 11:06am</u>		Received By: _____		Date/Time: _____	
Relinquished By: _____		Date/Time: _____		Received By: <u>Adams</u>		Date/Time: <u>4/3/24</u>	

930

JAK

EPC Confined Aquifer Sampling Requirements

Field Measurements

pH

Temp

Radionuclides

Radium 226 and Radium 228

Gross alpha/Beta

Inorganics

Antimony

Arsenic

Barium

Beryllium

Cadmium

Chromium

Cyanide (Total)

Fluoride

Mercury

Nitrate

Nitrite

Selenium

Thallium

Secondary MCLs

Aluminum

Chloride

Corrosivity

Iron

Manganese

Silver

Sulfate

Zinc

TDS

Bacteriological:

Total Coliform



Hazen Research, Inc.
4601 Indiana Street
Golden, CO 80403 USA
Tel: (303) 279-4501
Fax: (303) 278-1528

Lab Control ID: 24H01614
Received: Apr 04, 2024
Reported: May 01, 2024
Purchase Order No.
None Received

Customer ID: 05377Z
Account ID: Z01034

Rebecca Manzanares
Colorado Analytical Laboratories, Inc.
10411 Heinz Way
Commerce City, CO 80640

ANALYTICAL REPORT

*Report may only be copied in its entirety.
Results reported herein relate only to discrete samples
submitted by the client. Hazen Research, Inc. does not warrant
that the results are representative of anything other than the
samples that were received in the laboratory*

By: *Halley Jones For*
Roxanne Sullivan
Analytical Laboratories Director

Customer ID: 05377Z
 Account ID: Z01034

ANALYTICAL REPORT

Rebecca Manzanaras
 Colorado Analytical Laboratories, Inc.

Lab Sample ID			24H01614-001					
Customer Sample ID			240403019-01 - Knecht Property - #2 sampled on 04/02/24 @ 1022					
Parameter	Units	Code	Result	Precision* +/-	Detection Limit	Method	Analysis Date / Time	Analyst
Gross Alpha	pCi/L	T	9.8	3.2	1.4	SM 7110 B	04/17/24 @ 0918	KT
Gross Beta	pCi/L	T	7.3	3.0	2.0	SM 7110 B	04/17/24 @ 0918	KT

Lab Sample ID			24H01614-002					
Customer Sample ID			240403019-01A - Knecht Property - #2 sampled on 04/02/24 @ 1022					
Parameter	Units	Code	Result	Precision* +/-	Detection Limit	Method	Analysis Date / Time	Analyst
Radium-226	pCi/L	T	3.2	0.8	0.1	SM 7500-Ra B	04/10/24 @ 0850	KT
Radium-228	pCi/L	T	3.2	0.8	0.2	EPA pg.19	04/10/24 @ 1438	KR

Certification ID's: CO/EPA CO00008

*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Replicate Sample (AR) = As Received < = Less Than

Batch QC Summary Form

Analyte: Gross Alpha

Control Standard/LFB: ID: C11-005 pCi/mL: 57.4 (use 1 diluted)

Spike Solution: ID: C11-005 pCi/mL: 57.4 (use 1 mL)

Spike Recovery Calculation: Sample: Tap*

$$\text{Calculation: } \frac{(315.6) - (0.200) - (1.1) - (0.200)}{57.4} \times 100 = 110\%$$

Batch QC Evaluation:

Parameter	Criteria	Pass	Fail	N/A
Control Std./LFB	+/- 30 %	x		
Spike Recovery	70 - 130 %	x		
Blank	< or = 3 x Uncertainty	x		
Duplicate 1	95% confidence interval overlap	x		
Duplicate 2 *	95% confidence interval overlap	x		

* Required for batch size greater than 10 samples.

Conclusions:

 x Batch QC Passes**
 Batch QC Fails
 Batch QC Passes, with exceptions**:

Reruns Required: _____

Narrative:

**All QC data provided in this section of the report met the acceptance criteria specified in the analytical methods and procedures. State Maximum Contamination Levels (MCLs) are not evaluated in this report.

Batch Listing by Lab Control Number:

<u>24H01571</u>	<u>24H01612</u>
<u>24H01572</u>	<u>24H01614</u>
<u>24H01574</u>	<u>24H01617</u>
<u>24H01575</u>	<u>24H01618</u>
<u>24H01576</u>	<u>24H01623</u>
<u>24H01578</u>	_____
<u>24H01589</u>	_____
<u>24H01591</u>	_____
<u>24H01592</u>	_____
<u>24H01611</u>	_____

Evaluator:

 _____

04/19/2024

Date

Batch QC Summary Form

Analyte: Gross Beta

Control Standard/LFB: ID: C11-005 pCi/mL: 44 (use 1 diluted)

Spike Solution: ID: C11-005 pCi/mL: 44 (use 1 mL)

Spike Recovery Calculation: Sample: Tap*

$$\text{Calculation: } \frac{(209.4) - (0.200)}{44} - (0.9) \times 100 = 95\%$$

Batch QC Evaluation:

Parameter	Criteria	Pass	Fail	N/A
Control Std./LFB	+/- 30 %	x		
Spike Recovery	70 - 130 %	x		
Blank	< or = 3 x Uncertainty	x		
Duplicate 1	95% confidence interval overlap	x		
Duplicate 2 *	95% confidence interval overlap	x		

* Required for batch size greater than 10 samples.

Conclusions:

 x Batch QC Passes**
 Batch QC Fails
 Batch QC Passes, with exceptions**:

Reruns Required: _____


Narrative:

**All QC data provided in this section of the report met the acceptance criteria specified in the analytical methods and procedures. State Maximum Contamination Levels (MCLs) are not evaluated in this report.

Batch Listing by Lab Control Number:

<u>24H01571</u>	<u>24H01612</u>
<u>24H01572</u>	<u>24H01614</u>
<u>24H01574</u>	<u>24H01617</u>
<u>24H01575</u>	<u>24H01618</u>
<u>24H01576</u>	<u>24H01623</u>
<u>24H01578</u>	_____
<u>24H01589</u>	_____
<u>24H01591</u>	_____
<u>24H01592</u>	_____
<u>24H01611</u>	_____

Evaluator:

 _____

04/19/2024

Date

Batch QC Summary Form

Analyte: Radium-226

Control Standard/LFB: ID: C73-004 pCi/mL: 21.1 (use 2 diluted)

Spike Solution: ID: C73-004 pCi/mL: 21.1 (use 2 mL)

Spike Recovery Calculation: Sample: 24H01614-02b

$$\text{Calculation: } \frac{(43.2) (1.000) - (4.2) (1.000)}{42.2} \times 100 = 92\%$$

Batch QC Evaluation:

Parameter	Criteria	Pass	Fail	N/A
Control Std./LFB	+/- 20 %	x		
Spike Recovery	80 - 120 %	x		
Blank	< or = 3 x Uncertainty	x		
Duplicate 1	95% confidence interval overlap	x		
Duplicate 2 *	95% confidence interval overlap	x		

* Required for batch size greater than 10 samples.

Conclusions:

 x Batch QC Passes**
 Batch QC Fails
 Batch QC Passes, with exceptions**:

Reruns Required: _____

Narrative:

**All QC data provided in this section of the report met the acceptance criteria specified in the analytical methods and procedures. State Maximum Contamination Levels (MCLs) are not evaluated in this report.

Batch Listing by Lab Control Number:

24H01560 _____
24H01604 _____
24H01611 _____
24H01612 _____
24H01613 _____
24H01614 _____
24H01453 _____

Evaluator:
 _____

04/19/2024

 Date

Batch QC Summary Form

Analyte: Radium-228

Control Standard/LFB: ID: C6-007 pCi/mL: 14.1 (use 5 diluted)

Spike Solution: ID: C6-007 pCi/mL: 14.1 (use 5 mL)

Spike Recovery Calculation: Sample: 24H01623-001c

$$\text{Calculation: } \frac{(70.8) (1.000) - (3.4) (1.000)}{70.5} \times 100 = 95.6\%$$

Batch QC Evaluation:

Parameter	Criteria	Pass	Fail	N/A
Control Std./LFB	+/- 20 %	x		
Spike Recovery	80 - 120 %	x		
Blank	< or = 3 x Uncertainty	x		
Duplicate 1	95% confidence interval overlap	x		
Duplicate 2 *	95% confidence interval overlap			x

* Required for batch size greater than 10 samples.

Conclusions:

 x Batch QC Passes**
 Batch QC Fails
 Batch QC Passes, with exceptions**:

Reruns Required: _____

Narrative:

**All QC data provided in this section of the report met the acceptance criteria specified in the analytical methods and procedures. State Maximum Contamination Levels (MCLs) are not evaluated in this report.

Batch Listing by Lab Control Number:

24H01604 _____
24H01611 _____
24H01612 _____
24H01613 _____
24H01614 _____
24H01622 _____
24H01623 _____

Evaluator:
 _____

04/17/2024

 Date

Ship To: Hazen Res. **24H 01614**
 Preserved: Y **(N)**
 HNO3 Lot #: N/A
 Date Preserved: _____

Report To Information Company Name <u>Colorado Analytical Laboratory</u> Report To: <u>Rebecca Manzanares</u> E-Mail: <u>rebeccamanzanares@coloradolab.com</u>	Bill To Information: (If different from report to) 	Project Name <u>Knecht Property</u>
Address: <u>10411 Heinz Way</u> <u>Commerce City, CO 80640</u> Phone: <u>303-659-2313</u>	Address: CAL TASK 240403019 JAK	Compliance Samples: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Submit Data to CDPHE: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Tests Requested

Sample Date/Time	Sample ID	Matrix	Radium 226 (Sub)	Gross Alpha/Beta (Sub)	Radium 228 (Sub)	Container Type
4/2/24 10:22 AM	240403019-01 - #2	Water - Drinking	X			1L - Unpreserved
4/2/24 10:22 AM	240403019-01A - #2	Water - Drinking	X	X		4 - 1L - Unpreserved

Comment:

Hazen Preservation Checks

date /time
 4/4/24 1440 Initial pH 7
 A 15 Lot Presv'd by DB
 4/5/24 1005 Secondary pH ✓

less than 2

Relinquished by: (Signature) <u>[Signature]</u>	Date: Time: 4/4/24 912	Received by: (Signature)	Date: Time:	Relinquished by: (Signature)	Date: Time:	Received by: (Signature) RECEIVED APR 04 2024	Date: Time:
--	------------------------------	--------------------------	-------------	------------------------------	-------------	---	-------------

1440
DB