

TREASURED ACRES FARM Minor Subdivision

WATER QUALITY REPORT

**For
Treasured Acres Farm
Minor Subdivision**

May 28, 2021

Prepared By:



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

Executive Summary:

Water Quality Report – Treasured Acres Farm Minor Subdivision

Chris D. Cummins of Monson, Cummins & Shohet, LLC, on behalf of the Applicants, Jerry and Sharon Lomax, (“Owner”), provides the following Water Quality Report in support of the Treasured Acres Farm Minor Subdivision. The undersigned has been practicing water law almost exclusively, for over 17 years, and has substantial experience with Denver Basin groundwater resources, augmentation plans, designated basin replacement plans, subdivision proceedings, and rural water usage, and therefore should be considered a “qualified professional” as concerns water resources, as discussed at Section 8.4.7(B)(1)(c) of the El Paso County Land Development Code. This Report, prepared in conjunction with other professionals, is intended to demonstrate to the El Paso County Planning Commission and the BoCC, the sufficiency in terms of quality of the water rights and resources to be utilized in the proposed Treasured Acres Farm Minor Subdivision (the “Subdivision”), in Black Forest in El Paso County, Colorado.

The Property consists of 15.18 acres located at the current street address of 11750 Green Acres Lane, Colorado Springs, Colorado 80908, located in the SE¼ of Section 15, Township 12 South, Range 65 West of the 6th P.M., County of El Paso, State of Colorado. The three residential lots in the Subdivision are to be provided water and sewer/septic services through on-site individual wells and Individual Septic Disposal Systems (“ISDS”). The proposed minor subdivision includes three residential lots. Lot 1 has an existing residence and will be approximately 5 acres, and Lots 2 and 3, currently unimproved land, will also each be approximately 5 acres in size. The sufficiency and adequacy of water resources are described in a separate Water Resources Report.

The water resources to be utilized on the residential lots in the Subdivision is typical of rural residential development in the Black Forest in El Paso County, Colorado. The Replacement Plan issued by the Colorado Ground Water Commission demonstrates a sufficient quantity and reliability of water to support compliance with El Paso County’s 300-year water supply rules for subdivisions of this nature, and the well-established water quality in the Dawson Aquifer in this part of the County, demonstrates a sufficient water quality consistent with Section 8.4.7(3)(d) as well as quality testing completed for one of the Dawson aquifer wells existing on the property, demonstrates a sufficient water quality.

I. INTRODUCTION

The purpose of this report is to provide a preliminary outline of the water quality necessary for approval of the Treasured Acres Farm Minor Subdivision, as proposed.

1.1 **New Development Description:** The Subdivision consists of approximately 15.18 acres located at the current street address of 11750 Green Acres Lane, Colorado Springs, Colorado 80908 located in the SE¼ of Section 15, Township 12 South, Range

65 West of the 6th P.M., County of El Paso, State of Colorado. The Property will be subdivided into three lots. **Exhibit A**, attached hereto, is a plat for the Subdivision as proposed, prepared by Alessi and Associates, Inc.

II. PROJECTION OF WATER NEEDS

2.1 Analysis of Water Demands: It is expected that the three residential lots in the Subdivision will utilize three individual wells drilled to the Dawson aquifer to be used for domestic-type uses, including in-house, landscape/irrigation of lawn and gardens and greenhouse, and watering of domestic animals and stock, including one individual well existing on the Property and two individual wells to be constructed on the Property. An existing non-exempt well with Permit No. 3668-RP will provide water supply to one of the lots, while the to-be constructed non-exempt wells will serve the other residential lots. It is anticipated that the residences on the lots will utilize a maximum total of 0.60 annual acre feet of water, or 0.20 acre-feet per residence for in-house residential purposes, consistent with Section 8.4.7(B)(7)(d). The remaining amount 2.9 acre-feet will be allocated for other approved uses under the Replacement Plan. The existing well, permitted under Permit No. 3668-RP, is constructed to and will produce from the non-tributary Dawson aquifer at a flow rate of 10 to 15 gallons per minute, based upon past production. There are no other wells currently constructed on the property. Based on past experience with the numerous Dawson aquifer wells serving rural residential properties throughout El Paso County, this rate of production should be more than sufficient to meet demand for in-house use.

III. PROPOSED WATER RIGHTS QUALITY

3.1 Water Rights: A Replacement Plan for utilizing the underlying Dawson aquifer was approved by the Colorado Ground Water Commission on April 29, 2019, and the sufficiency and dependability of such water supplies are described in a separate Water Resources Report.

3.2 Source of Supply: Rural residential water supply demand will be met using an existing not-nontributary Dawson aquifer formation well and two to-be-constructed not-nontributary Dawson aquifer formation wells. Consistent with El Paso County Land Development Code Section 8.4.7(B)(3)(c)(v), a minor subdivision utilizing individual wells need not make a further showing as to source of supply.

3.3 Water Quality and Treatment: The water quality in the Denver Basin aquifers in this area is well established as being suitable for potable use with only in-house filtration for mineral deposits, with an estimated 27,000 households in El Paso County currently utilizing Denver Basin wells. See June 15, 2015 Gazette article – “*Where there is a well, there is a way...*”, attached hereto as **Exhibit C**. The existing well has been historically utilized for water service to a single-family home, with all legal requirements regarding bacterial/inorganics testing presumably satisfactory. Applicant has obtained new water quality testing for the existing well with Permit No. 3668-RP, including bacterial and inorganic testing, so as to ensure compliance with Land Development Code Section 8.4.7(B)(3)(d), and copies of those testing results are

collectively attached hereto as **Exhibit D** (per the revised LDC, Section 8.4.7(B)(10)(a): *“for subdivisions served by groundwater wells drawing only from a confined aquifer, the chemical analysis does not need to include the Volatile Organic Chemical Contaminants and Synthetic Organic Chemical Contaminants”*). The to-be-constructed wells will meet all applicable regulatory requirements regarding quality testing before being utilized as a residential water source.

Respectfully submitted this 28th day of May, 2021.

MONSON, CUMMINS & SHOHET, LLC

/s/ Chris D. Cummins

Chris D. Cummins

cc: Client

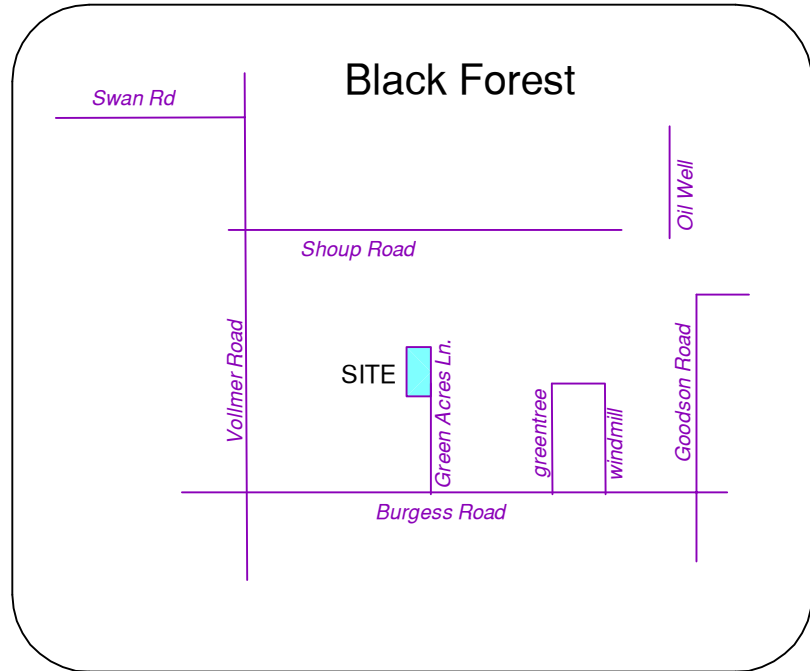
Exhibits:

- A – Location Map/Plat of the Property
- B – Well Permit
- C – Gazette article
- D – Well Testing Results



Land Survey Plat

A portion of Southeast Quarter of Section 15, Township 12 South, Range 65 West of the 6th P.M., County of El Paso, State of Colorado.



VICINITY MAP
Not to Scale



Legal Description:

The Northwest Quarter and the Northeast Quarter of the Southeast Quarter, and the West Half of the Southwest Quarter of the Northeast Quarter of the Southeast Quarter of Section 15, Township 12 South, Range 65 West of the 6th P.M., County of El Paso, State of Colorado, together with an easement for a 30 foot Right-of-Way for ingress and egress from the County Road which runs Easterly and Westerly along the Southerly line of said Section 15, the Centerline of which Right-of-Way is a line extending Southerly from the Southeast corner of the Northeast Quarter of the Northeast Quarter of the Southeast Quarter of said Section 15 to a point on the South line of, and equally distant from, the Southeast and Southwest corners of the Southeast Quarter of the Southeast Quarter of said Section 15, El Paso County, Colorado and together with an Easement and Right-of-Way for ingress and egress over the Southerly 30 feet and over the Westerly 15 feet of the Easterly 30 feet of the East half of the Southwest Quarter of the Northeast Quarter of the Southeast Quarter of Section 15 in Township 12 South, Range 65 West of the 6th P.M., County of El Paso, State of Colorado. More particularly described: Commencing at the East Quarter corner of said Section 15; thence S.88°58'56\"/>

Notes:

This survey does not constitute a title search by Alessi and Associates to determine ownership of easements of record. For all information regarding easement, Rights-of-Way and Title of Record, ALESSI and ASSOCIATES referred to the legal description provided by the client and the title policy. This certification does not take into consideration additional facts that an accurate and correct title search and/or examination might disclose including, but not limited to, descriptions contained in deed for adjacent properties. The sketch shown hereon does not necessarily contain all of the information obtained or developed by the surveyor in the field work, or research.

- | | |
|--------------------|---|
| 1) Bearings | Basis of Bearing as shown |
| 2) Road Easement | Green Acres Lane to Burgess Road |
| 3) Access | Access is permitted Green Acres Lane to Burgess Road. |
| 4) Parcel Size | Parcel = 15.18 Acres Total |
| 5) Flood FEMA Maps | This site is NOT within a designated F.E.M.A. Floodplain as determined by the Flood Insurance Rate Map, Community Panel Number 08041C0320G, effective December 7, 2018. |

Notice: According to Colorado Law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event, may any action based upon any defect in this survey be commenced more than ten years from the date of the Certification shown hereon.

Certification:

This certification is to Jerry Lomax

Standards observed and used on this project conform to the generally accepted, reasonable standards for this class of work usually applied by other surveyors in El Paso County, Colorado at the time of this certification.

This survey does not constitute a title search by Alessi and Associates, Inc. to determine ownership of easements of record. For all information regarding easement, Rights-of-Way and Title of Record, ALESSI and ASSOCIATES, Inc. referred to the legal description provided by client and the title policy.

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Surveyor's Statement:

The undersigned Registered Land Surveyor in the State of Colorado hereby certifies that the accompanying plat was surveyed and drawn under his supervision and accurately shown the described tract of land, and subdivision thereof, and that the requirements of Title 38 of the Colorado Revised Statutes, 1973, as amended have been met to the best of his knowledge and belief.

Certified this _____ Day of _____, 2019 by:



Joseph Alessi, PLS
Colorado Registered No 30130

County Surveyors Certificate:

Deposited this _____ day of _____, 2019 A.D. at _____ O'Clock in Book _____ of the County Surveyor's Land Survey Plat/Right of Way Surveys at page _____, Reception Number _____, this Land Survey Plat complies with Section 38-51-102, Colorado Revised Statutes.

Deputy Clerk and Recorder



ALESSI and ASSOCIATES, Inc.

APPRAISERS • ENGINEERS • SURVEYORS
2989 Broadmoor Valley Road, Suite C
Colorado Springs, CO 80906
Tele. 719/540-8832
Fax 719/540-2781

Portion of SE1/4 Section 15, Township 12 South, Range 65 West
6th Principle Meridian, County of El Paso, State of Colorado

Job No. 191279 Land Survey Plat Date July 30, 2019



COLORADO
Division of Water Resources
Department of Natural Resources

WELL PERMIT NUMBER 3668-RP
RECEIPT NUMBER 3689078

ORIGINAL PERMIT APPLICANT(S)

JERRY LOMAX
SHARON LOMAX

APPROVED WELL LOCATION

Water Division: 2 Water District: 10
Designated Basin: UPPER BLACK SQUIRREL CREEK
Management District: UPPER BLACK SQUIRREL
County: EL PASO
Parcel Name: N/A
Physical Address: 11750 GREEN ACRES LANE COLORADO
 SPRINGS, CO 80908

NE 1/4 SE 1/4 Section 15 Township 12.0 S Range 65.0 W Sixth P.M.

UTM COORDINATES (Meters, Zone: 13, NAD83)

Easting: 530564.7 Northing: 4317284.1

See the original well permit file for permit conditions of approval and additional details. The original permit file can be viewed using the Well Permit Search Tool at www.water.state.co.us

Issued By AILIS THYNE

Date Issued: 4/29/2019

Expiration Date: N/A

Form No. GWS-32 09/2016	PUMP INSTALLATION AND PRODUCTION EQUIPMENT TEST REPORT State of Colorado, Office of the State Engineer 1313 Sherman St., Room 821, Denver, CO 80203 303.866.3581 www.water.state.co.us and dwrpermitsonline@state.co.us	For Office Use Only																												
1. Well Permit Number: 3668-RP Receipt Number:																														
2. Owner's Well Designation:																														
3. Well Owner Name: Jerry Lomax																														
4. Well Location Street Address: 11750 Green Acres Lane, Colorado Springs CO 80908																														
5. GPS Well Location: <input type="checkbox"/> Zone 12 <input checked="" type="checkbox"/> Zone 13 Easting: 530394.4 Northing: 4317148.7 County: El Paso																														
6. Legal Well Location: 1/4, 1/4, Sec., Twp. <input type="checkbox"/> N or <input type="checkbox"/> S, Range <input type="checkbox"/> E or <input type="checkbox"/> W Distances from Section Lines: ft. from <input type="checkbox"/> N or <input type="checkbox"/> S sec. line, and ft. from <input type="checkbox"/> E or <input type="checkbox"/> W sec. line Subdivision: , Lot , Block , Filing (Unit)																														
7. Check Installation Type: <input type="checkbox"/> Initial Pump Installation <input checked="" type="checkbox"/> Replacement Pump <input type="checkbox"/> Change in Depth Only <input type="checkbox"/> Repair																														
8. Pump Data: Type: Submersible Date Installed(mm/dd/yyyy): 5/12/2020 Pump Manufacturer: Franklin Pump Model No. 0170-10FRD07S Design GPM: 10 at RPM HP .75 Volts 230 Full Load Amps 8 Pump Intake Depth: 190 Feet, Drop/Column Pipe Size Inches, 1 Kind of Drop Pipe PVC Additional Information for Pumps Greater Than 50 GPM: Turbine Driver Type: <input type="radio"/> Electric <input type="radio"/> Engine <input type="radio"/> Other Design Head: feet Number of Stages: Shaft size: inches																														
9. Other Equipment: Airline Installed <input type="checkbox"/> Yes <input type="checkbox"/> No, Orifice Depth ft. Monitor Tube Installed: <input type="radio"/> Yes <input checked="" type="radio"/> No, Depth ft. Flow Meter Mfg. Meter Serial No. Meter Readout: <input type="checkbox"/> Gallons, <input type="checkbox"/> Thousand Gallons, <input type="checkbox"/> Acre feet Beginning Reading:																														
10. Cistern Information: Material: Capacity: gallons																														
11. Production Equipment Test Data: <input type="checkbox"/> check box if data is submitted on Form Number GWS-39 Well Yield Test Report. <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;"></th> <th style="width: 10%;">Date:</th> <th style="width: 10%;">5/12/20</th> <th style="width: 10%;">5/12/20</th> <th style="width: 10%;">5/12/20</th> <th style="width: 10%;">5/12/20</th> <th style="width: 10%;">5/12/20</th> </tr> </thead> <tbody> <tr> <td>Total Well Depth: 204 ft.</td> <td>Time:</td> <td>Start</td> <td>10 min</td> <td>20 min</td> <td>30 min</td> <td>40 min</td> </tr> <tr> <td>Static Level: 163 ft.</td> <td>Rate (gpm):</td> <td></td> <td>8</td> <td>8</td> <td>8</td> <td></td> </tr> <tr> <td>Date Measured: 5/12/20</td> <td>Pumping Level (ft):</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Date:	5/12/20	5/12/20	5/12/20	5/12/20	5/12/20	Total Well Depth: 204 ft.	Time:	Start	10 min	20 min	30 min	40 min	Static Level: 163 ft.	Rate (gpm):		8	8	8		Date Measured: 5/12/20	Pumping Level (ft):					
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Date Measured: 5/12/20	Pumping Level (ft):																													
12. Disinfection: Type: HTH Amt. Used: 8 oz																														
13. Notification: Was Notification Required Prior to Construction? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No, Date Notification Given:																														
14. Water Quality analysis available: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please submit with this report.																														
15. Remarks:																														
16. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402-2. The filing of a document that contains false statements is a violation of section 37-91-108(1)(e), C.R.S., and is punishable by fines up to \$1000 and/or revocation of the contracting license. If filing online, the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.																														
Company Name: Barnhart Pump Company	Email: info@barnhartpump.com	Phone w/area code: 719-683-7512																												
		License Number: 1122																												
Mailing Address: 5015 E Blaney Road Falcon CO 80831																														
Sign (or enter name if filing online) Steve Barnhart	Print Name and Title Owner	Date: 5/15/2020																												

The Country Life: Where there's a well, there's a way to get water - hopefully

By: **Bill Radford** (/author/Bill+Radford) • June 15, 2015 • *Updated: June 15, 2015 at 4:10 am*

EXHIBIT D

About 27,000 households are served by individual water wells in El Paso County. BILL RADFORD, THE GAZETTE

[View Gallery !\[\]\(99f58673407353e96a019fbca558fd72_img.jpg\)](/gallery/articleid/1553752/pictures?display=flexFullscreen&galleryTheme=lightTheme) (/gallery/articleid/1553752/pictures?display=flexFullscreen&galleryTheme=lightTheme)

[Log in to comment \(/comments/1/1553752\)](/comments/1/1553752)

When a well was drilled for a neighbor's new home recently, it was another "straw" dipping into the water beneath our feet.

There's a lot of such straws in the area. An estimated 27,000 homes - about 67,500 residents - are served by private water wells in El Paso County. That's about 11 percent of residents; the rest are served by public drinking water systems, from the biggie - Colorado Springs Utilities - to smaller ones such as Donala Water and Sanitation District, Cherokee Metro and the city of Fountain. The public systems draw their water from surface water, groundwater or both.

In eastern El Paso County, where I live, most utilize groundwater - the water that lies beneath the Earth's surface. Our well reaches 870 feet into the Arapahoe Aquifer; it's one of four aquifers that make up the Denver Basin, which stretches from El Paso County to Weld County.

If you're looking for property in the country with plans to dig a well, do your homework first, cautions Mark Birkelo, general manager of Barnhart Pump Co. in Falcon.

"The first phone call you want to make is to a water well contractor," Birkelo said. A company such as Barnhart quickly can check on water quality and quantity in a given area.

"That phone call can save a lot of grief," Birkelo said.

Once a site is chosen, the homeowner must acquire a permit from the state Division of Water Resources. Residential permits include domestic and household use only; the latter means no outside water, so no water for lawns, livestock, etc.

Ready to drill a well? "The cost for drilling and pumping can be considerable," cautions El Paso County's "Code of the West." Expect to pay about \$22 to \$24 a foot for a well 600 feet or deeper, Birkelo said; the cost per foot will be less if under about 600 feet. Barnhart is not a drilling company, but does the oversight for 40 to 50 new wells a year, Birkelo said.

If moving to property with a well, test the water pump's production and the quality of the water, Birkelo advised; for information on water potability testing, visit El Paso County Public Health's website at elpasocountyhealth.org/service/water-quality.

Quality is one issue; quantity is another. One afternoon I turned on the tap and nothing came out. The immediate paranoid thought: Our well had run dry. But we had simply overtaxed the water pump; after a 10-minute break, water started to flow again. But long-term worry remains. As a water resources report on the county's website notes, "the aquifers found in the Denver Basin are not considered to be a long-range, renewable source of water. The bedrock aquifers are subject to depletion if withdrawals exceed the natural recharge rate, which is very slow, given that the water within these aquifers has accumulated over thousands of years. The negligible rate of natural recharge, the considerable increase in water withdrawal, and the semiarid climate of the region have led to a situation where the amount of withdrawal from the aquifers may be exceeding the amount of recharge."

Birkelo, who has been in the water business in El Paso County for 30 years, believes that rate of replenishment

depends on the area. There are some wells that have a higher water level than they did decades before, he said, even though "there have been more straws put into that glass of water over time." In other areas, he has seen water levels drop.

Bottom line: It's tough to know what's happening deep underground, he says. That's why oil companies "spend millions of dollars trying to see what's down there" and often end up with a hole in the ground and nothing to show for it. "We know more about outer space," Birkelo said, "than we do what's under our own two feet."

May 20, 2021

Electronic Development Application Review Program
El Paso County Planning and Community Development
2880 International Circle
Colorado Springs, CO 80910

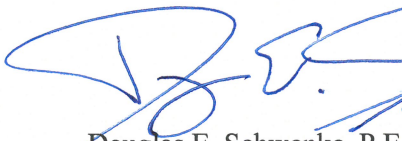
RE: Water Quality Report
Treasured Acres Subdivision – EPC Parcel #5215000035
Opinion of Water Quality

Dear Ms. Ruiz,

Water quality results provided according to Section 8.4.7.B.10(a) of the Amended El Paso County Land Development Code (LDC-19-007), Resolution No. 19-329, for the Proposed Treasured Acres Subdivision located at 11750 Green Acres Lane, Colorado Springs, CO 80908 and owned by Jerry and Sharon Lomax were found to have no constituents of concern. The Dawson well at the existing residence was sampled on April 14th, 2021 and sent to Colorado Analytical and ACZ Laboratories for analysis according to the constituents listed in the LDC section above for a small three lot subdivision. All results were obtained by May 20, 2021 and tabulated in the attached table. All constituents were found to be below the Maximum Contaminant Limits as established by the Colorado Department of Health and Environment. The only notable results were those found to be below recommended limits, which in this case included a Langoliers Index of -2.63 and a pH of 5.9. These results do tend to indicate a relatively corrosive water. It is recommended that the homes be built without lead solder joints or copper piping and instead be equipped with polyethelyene plumbing and non-corrosive fixtures. Otherwise, the results indicate source water that does not pose any health concerns to the public.

Please feel free to contact me with any questions.

Respectfully,


Douglas E. Schwenke, P.E.
JDS-Hydro Consultants, Inc.



***El Paso County Land Development Code
Water Quality Requirements and Results
Dawson Confined Aquifer
for Jerry Lomax - Treasured Acres Subdivision
Sampled April 14, 2021***

Compound	Units	MCL/SMCL	Result
Antimony	mg/l	0.006	<0.001
Arsenic	mg/l	0.01	<0.001
Barium	mg/l	2	0.14
Beryllium	mg/l	0.004	<0.001
Cadmium	mg/l	0.005	<0.001
Chromium	mg/l	0.1	0.001
Nickel	mg/l	N/A	<0.001
Fluoride	mg/l	4	0.11
Mercury	mg/l	0.002	<0.001
Nitrate as N	mg/l	10	0.51
Nitrite as N	mg/l	1	<0.03
Selenium	mg/l	0.05	0.002
Thallium	mg/l	0.002	<0.001
Aluminum	mg/l	0.05	0.03
Chloride	mg/l	250	2.7
Langelier Index			-2.63
Iron	mg/l	0.3	<0.005
Manganese	mg/l	0.05	<0.0008
pH		6.5 - 8.5	5.9
Silver	mg/l	0.1	<0.0005
Sulfate	mg/l	250	6.7
Bicarbonate	mg/l	N/A	54.2
Calcium	mg?L	N/A	37
Carbonate	mg/L	N/A	< 4
Hydroxide	mg/L	N/A	< 4
Temperature	° C	N/A	15°
Total Alkalinity	mg/L	N/A	54.2
Sodium	mg/l	N/A	6.9
TDS	mg/l	500	117
Zinc	mg/l	5	0.084
Gross Alpha/Beta	pCi/l	15	9.6
Combined Radium 226+228	pCi/l	5	3.5
E-Coli	#/100 ml	Absent	Absent
Total Coliform	#/100 ml	Absent	Absent

Green = Result below MCL or Acceptable Water Quality

TREASURED ACRES FARM Minor Subdivision

WATER RESOURCES REPORT

**For
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Minor Subdivision**

May 28, 2021

Prepared By:



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

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The Property consists of approximately 15.18 acres located at the current street address of 11750 Green Acres Lane, Colorado Springs, Colorado 80908, located in the SE¼ of Section 15, Township 12 South, Range 65 West of the 6th P.M., County of El Paso, State of Colorado. The three residential lots in the Subdivision are to be provided water and sewer/septic services through on-site individual wells and Individual Septic Disposal Systems (“ISDS”). The proposed minor subdivision includes three residential lots. Lot 1 has an existing residence and will be approximately 5 acres, and Lots 2 and 3, currently unimproved land, will also each be approximately 5 acres in size.

It is expected that each of the residential homes on each residential lot in the Subdivision will require an average of 1.16 annual acre-feet of water supply, for a total of 3.5 annual acre-feet, to be provided through three individual wells to the non-tributary Dawson aquifer, consistent with the Replacement Plan associated with Determination of Water Right No. 3668-BD, as issued by the Colorado Ground Water Commission on April 29, 2019 (“Replacement Plan”). The Replacement Plan provides for a 300-year water supply for the residential lots within the Subdivision, with each residential lot utilizing ISDS of a non-evaporative nature.

The water resources to be utilized on the residential lots in the Subdivision are typical of rural residential development in the Black Forest in El Paso County, Colorado. The Replacement Plan issued by the Colorado Ground Water Commission demonstrates a sufficient quantity and reliability of water to support compliance with El Paso County’s 300-year water supply rules for subdivisions of this nature.

I. INTRODUCTION

The purpose of this report is to provide a preliminary outline of the water resources, associated wastewater requirements, necessary for approval of the Treasured Acres Farm Minor Subdivision, as proposed.

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2.1 Analysis of Water Demands: It is expected that the three residential lots in the Subdivision will utilize three individual wells drilled to the Dawson aquifer to be used for domestic-type uses, including in-house, landscape/irrigation of lawn and gardens and greenhouse, and watering of domestic animals and stock, including one individual well existing on the Property and two individual wells to be constructed on the Property. An existing non-exempt well with Permit No. 3668-RP will provide water supply to one of the lots, while the to-be constructed non-exempt wells will serve the other residential lots. It is anticipated that the residences on the lots will utilize a maximum total of 0.60 annual acre feet of water, or 0.20 acre-feet per residence for in-house residential purposes, consistent with Section 8.4.7(B)(7)(d). The remaining amount 2.9 acre-feet will be allocated for other approved uses under the Replacement Plan. The existing well, permitted under Permit No. 3668-RP, is constructed to and will produce from the non-tributary Dawson aquifer at a flow rate of 10 to 15 gallons per minute, based upon past production. There are no other wells currently constructed on the property. Based on past experience with the numerous Dawson aquifer wells serving rural residential properties throughout El Paso County, this rate of production should be more than sufficient to meet demand for in-house use.

III. PROPOSED WATER RIGHTS AND FACILITIES

3.1 Water Rights: A Replacement Plan for utilizing the underlying Dawson aquifer was approved by the Colorado Ground Water Commission on April 29, 2019. A copy of the recorded Replacement Plan is attached hereto as **Exhibit C**, and a copy of the associated Determinations of Water Rights for the underlying Denver Basin groundwater in Determination Nos. 3668-BD (Dawson), 3667-BD (Denver), 3666-BD (Arapahoe), and 3665-BD (Laramie-Fox Hills), are collectively attached as **Exhibit D**, including the following specific quantities of water:

AQUIFER	Saturated Thickness (ft)	Total Water Adjudicated (Acre Feet)	Annual Average Withdrawal – 300 Years (Acre Feet)¹
Dawson (NNT)	355	1060	3.5
Denver (NNT-4%)	325	829	2.76
Arapahoe (NT)	250	638	2.12
Laramie Fox Hills (NT)	185	416	1.39

All depletions are augmented in time, place and amount through septic return flows during pumping. The available supplies will meet both legal and physical needs on a 300-year basis.

3.2 Source of Supply: Rural residential water supply demand will be met using an existing not-nontributary Dawson aquifer formation well and two to-be-constructed not-nontributary Dawson aquifer formation wells. Consistent with El Paso County Land Development Code Section 8.4.7(B)(3)(c)(v), a minor subdivision utilizing individual wells need not make a further showing as to source of supply.

3.3 Pumping Rates for Service: The Dawson aquifer in the location of the Subdivision is generally known to produce approximately 10-15 gallons per minute, more than sufficient for single family residential and accessory uses, and such production is consistent with the historical use of Permit No. 3668-RP. A copy of the well permit file from the Division of Water Resources for Permit No. 3668-RP is attached hereto as **Exhibit B**. Such flow rates are typical of individual wells on subdivisions within the area in the Black Forest, including typical for firefighting purposes.

IV. WASTEWATER AND WASTEWATER TREATMENT – While soils, geology and geotechnical analysis has been provided by other of Applicant's consultants, Applicant provides a summary of ISDS to be utilized herein, as relates to water usage and resulting return flows which support the issued Replacement Plan.

4.1 Septic/Wastewater Loads: Septic projections are based on similar Denver Basin residential uses on rural residential lots. Average daily wastewater loads are expected to be approximately 180 gallons per day per single-family residence. Maximum daily wastewater loads are expected to be roughly 200 gallons per day per single-family residence, assuming residential in-house use at the 0.20 acre foot per year rate described in the approved Replacement Plan.

4.2 On-Site Wastewater Treatment Systems: The three residential lots within the Subdivision will be served by individual on-site wastewater treatment systems.

¹ All four aquifer annual withdrawal figures represent not the 100-year aquifer life discussed at C.R.S. §37-90-137(4), but rather a 300-year aquifer life consistent with provision of a 300-year water supply in compliance with El Paso County, Colorado land development code as applicable to the subdivision of Applicant's Property. The 100-year annual average withdrawals are 10.60, 8.29, 6.38, and 4.16 acre-feet, respectively.

There is an existing and approved on-site wastewater treatment system on one lot, and two others will be constructed to the other residential lots upon approval of the Subdivision. Based on such historical use, the site is suitable for on-site wastewater treatment system/ISDS. The on-site wastewater treatment system will be evaluated and installed according to El Paso County Guidelines and properly maintained to prevent contamination of surface and subsurface water resources.

Respectfully submitted this 28th day of May, 2021.

MONSON, CUMMINS & SHOHET, LLC

/s/ Chris D. Cummins

Chris D. Cummins

cc: Client

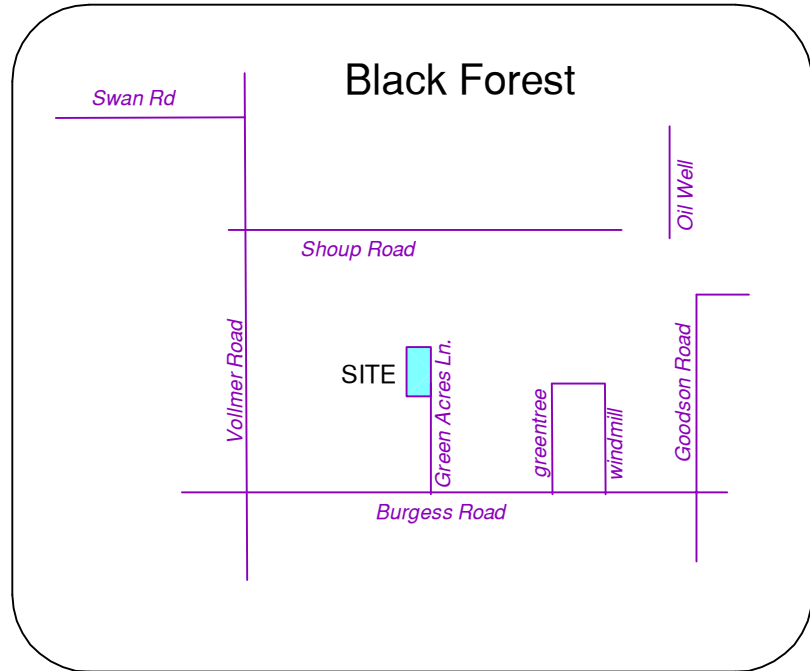
Exhibits:

- A – Location Map/Plat of Property
- B – Existing Well Permit File
- C – Replacement Plan
- D – Ground Water Determinations



Land Survey Plat

A portion of Southeast Quarter of Section 15, Township 12 South, Range 65 West of the 6th P.M., County of El Paso, State of Colorado.



VICINITY MAP
Not to Scale



Legal Description:

The Northwest Quarter and the Northeast Quarter of the Southeast Quarter, and the West Half of the Southwest Quarter of the Northeast Quarter of the Southeast Quarter of Section 15, Township 12 South, Range 65 West of the 6th P.M., County of El Paso, State of Colorado, together with an easement for a 30 foot Right-of-Way for ingress and egress from the County Road which runs Easterly and Westerly along the Southerly line of said Section 15, the Centerline of which Right-of-Way is a line extending Southerly from the Southeast corner of the Northeast Quarter of the Northeast Quarter of the Southeast Quarter of said Section 15 to a point on the South line of, and equally distant from, the Southeast and Southwest corners of the Southeast Quarter of the Southeast Quarter of said Section 15, El Paso County, Colorado and together with an Easement and Right-of-Way for ingress and egress over the Southerly 30 feet and over the Westerly 15 feet of the Easterly 30 feet of the East half of the Southwest Quarter of the Northeast Quarter of the Southeast Quarter of Section 15 in Township 12 South, Range 65 West of the 6th P.M., County of El Paso, State of Colorado. More particularly described: Commencing at the East Quarter corner of said Section 15; thence S.88°58'56"W. coincident with the East West centerline of said Section 15, a distance of 667.84 feet to the POINT OF BEGINNING of a parcel of land described herein; thence S.00°31'09"E. coincident with the East line of the West 1/2 of the NE1/4 SE1/4 of said Section 15, a distance of 660.40 feet; thence S.89°01'00"W. coincident with the South line of the N1/2 of the E1/2 of the W1/2 NE1/4 SE1/4 of said Section 15, a distance of 333.97 feet; thence S.00°30'43"E. coincident with the East line of the S1/2 of the W1/2 NE1/4 SE1/4 of said Section 15, a distance of 660.20 feet; thence S.89°03'06"W. coincident with the South line of the W1/2 NE1/4 SE1/4 of said Section 15, a distance of 334.00 feet; thence N.00°30'35"W. coincident with the West line of the W1/2 NE1/4 SE1/4 of said Section 15, a distance of 1320.00 feet; thence N.88°58'56"E. coincident with the North line of the W1/2 NE1/4 SE1/4 of said Section 15, a distance of 667.84 feet to the POINT OF BEGINNING. Containing 661,384.46 square feet or 15.1833 acres, more or less.

Notes:

This survey does not constitute a title search by Alessi and Associates to determine ownership of easements of record. For all information regarding easement, Rights-of-Way and Title of Record, ALESSI and ASSOCIATES referred to the legal description provided by the client and the title policy. This certification does not take into consideration additional facts that an accurate and correct title search and/or examination might disclose including, but not limited to, descriptions contained in deed for adjacent properties. The sketch shown hereon does not necessarily contain all of the information obtained or developed by the surveyor in the field work, or research.

- | | |
|--------------------|---|
| 1) Bearings | Basis of Bearing as shown |
| 2) Road Easement | Green Acres Lane to Burgess Road |
| 3) Access | Access is permitted Green Acres Lane to Burgess Road. |
| 4) Parcel Size | Parcel = 15.18 Acres Total |
| 5) Flood FEMA Maps | This site is NOT within a designated F.E.M.A. Floodplain as determined by the Flood Insurance Rate Map, Community Panel Number 08041C0320G, effective December 7, 2018. |

Notice: According to Colorado Law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event, may any action based upon any defect in this survey be commenced more than ten years from the date of the Certification shown hereon.

Certification:

This certification is to Jerry Lomax

Standards observed and used on this project conform to the generally accepted, reasonable standards for this class of work usually applied by other surveyors in El Paso County, Colorado at the time of this certification.

This survey does not constitute a title search by Alessi and Associates, Inc. to determine ownership of easements of record. For all information regarding easement, Rights-of-Way and Title of Record, ALESSI and ASSOCIATES, Inc. referred to the legal description provided by client and the title policy.

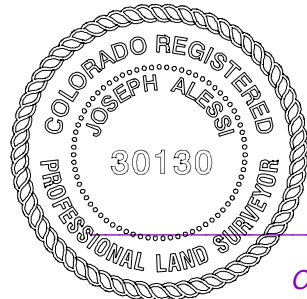
This certification does not take into consideration additional facts that an accurate and correct title search and/or examination might disclose including, but not limited to, descriptions contained in deed for adjacent properties.

Notice: According to Colorado Law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event, may any action based upon any defect in this survey be commenced more than ten years from the date of the Certification shown hereon.

Surveyor's Statement:

The undersigned Registered Land Surveyor in the State of Colorado hereby certifies that the accompanying plat was surveyed and drawn under his supervision and accurately shown the described tract of land, and subdivision thereof, and that the requirements of Title 38 of the Colorado Revised Statutes, 1973, as amended have been met to the best of his knowledge and belief.

Certified this _____ Day of _____, 2019 by:



Joseph Alessi, PLS
Colorado Registered No 30130

County Surveyors Certificate:

Deposited this _____ day of _____, 2019 A.D. at _____ O'Clock in Book _____ of the County Surveyor's Land Survey Plat/Right of Way Surveys at page _____, Reception Number _____, this Land Survey Plat complies with Section 38-51-102, Colorado Revised Statutes.

Deputy Clerk and Recorder



ALESSI and ASSOCIATES, Inc.

APPRAISERS • ENGINEERS • SURVEYORS
2989 Broadmoor Valley Road, Suite C
Colorado Springs, CO 80906
Tele. 719/540-8832
Fax 719/540-2781

Portion of SE1/4 Section 15, Township 12 South, Range 65 West
6th Principle Meridian, County of El Paso, State of Colorado

Job No. 191279 Land Survey Plat Date July 30, 2019



COLORADO
Division of Water Resources
Department of Natural Resources

WELL PERMIT NUMBER 3668-RP
RECEIPT NUMBER 3689078

ORIGINAL PERMIT APPLICANT(S)

JERRY LOMAX
SHARON LOMAX

APPROVED WELL LOCATION

Water Division: 2 Water District: 10
Designated Basin: UPPER BLACK SQUIRREL CREEK
Management District: UPPER BLACK SQUIRREL
County: EL PASO
Parcel Name: N/A
Physical Address: 11750 GREEN ACRES LANE COLORADO
 SPRINGS, CO 80908

NE 1/4 SE 1/4 Section 15 Township 12.0 S Range 65.0 W Sixth P.M.

UTM COORDINATES (Meters, Zone: 13, NAD83)

Easting: 530564.7 Northing: 4317284.1

See the original well permit file for permit conditions of approval and additional details. The original permit file can be viewed using the Well Permit Search Tool at www.water.state.co.us

Issued By AILIS THYNE

Date Issued: 4/29/2019

Expiration Date: N/A

Form No. GWS-32 09/2016	PUMP INSTALLATION AND PRODUCTION EQUIPMENT TEST REPORT State of Colorado, Office of the State Engineer 1313 Sherman St., Room 821, Denver, CO 80203 303.866.3581 www.water.state.co.us and dwrpermitsonline@state.co.us	For Office Use Only																												
1. Well Permit Number: 3668-RP Receipt Number:																														
2. Owner's Well Designation:																														
3. Well Owner Name: Jerry Lomax																														
4. Well Location Street Address: 11750 Green Acres Lane, Colorado Springs CO 80908																														
5. GPS Well Location: <input type="checkbox"/> Zone 12 <input checked="" type="checkbox"/> Zone 13 Easting: 530394.4 Northing: 4317148.7 County: El Paso																														
6. Legal Well Location: 1/4, 1/4, Sec., Twp. <input type="checkbox"/> N or <input type="checkbox"/> S, Range <input type="checkbox"/> E or <input type="checkbox"/> W Distances from Section Lines: ft. from <input type="checkbox"/> N or <input type="checkbox"/> S sec. line, and ft. from <input type="checkbox"/> E or <input type="checkbox"/> W sec. line Subdivision: , Lot , Block , Filing (Unit)																														
7. Check Installation Type: <input type="checkbox"/> Initial Pump Installation <input checked="" type="checkbox"/> Replacement Pump <input type="checkbox"/> Change in Depth Only <input type="checkbox"/> Repair																														
8. Pump Data: Type: Submersible Date Installed(mm/dd/yyyy): 5/12/2020 Pump Manufacturer: Franklin Pump Model No. 0170-10FRD07S Design GPM: 10 at RPM HP .75 Volts 230 Full Load Amps 8 Pump Intake Depth: 190 Feet, Drop/Column Pipe Size Inches, 1 Kind of Drop Pipe PVC Additional Information for Pumps Greater Than 50 GPM: Turbine Driver Type: <input type="radio"/> Electric <input type="radio"/> Engine <input type="radio"/> Other Design Head: feet Number of Stages: Shaft size: inches																														
9. Other Equipment: Airline Installed <input type="checkbox"/> Yes <input type="checkbox"/> No, Orifice Depth ft. Monitor Tube Installed: <input type="radio"/> Yes <input checked="" type="radio"/> No, Depth ft. Flow Meter Mfg. Meter Serial No. Meter Readout: <input type="checkbox"/> Gallons, <input type="checkbox"/> Thousand Gallons, <input type="checkbox"/> Acre feet Beginning Reading:																														
10. Cistern Information: Material: Capacity: gallons																														
11. Production Equipment Test Data: <input type="checkbox"/> check box if data is submitted on Form Number GWS-39 Well Yield Test Report. <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:25%;"></td> <td style="width:10%;">Date:</td> <td style="width:10%;">5/12/20</td> <td style="width:10%;">5/12/20</td> <td style="width:10%;">5/12/20</td> <td style="width:10%;">5/12/20</td> <td style="width:10%;">5/12/20</td> </tr> <tr> <td>Total Well Depth: 204 ft.</td> <td>Time:</td> <td>Start</td> <td>10 min</td> <td>20 min</td> <td>30 min</td> <td>40 min</td> </tr> <tr> <td>Static Level: 163 ft.</td> <td>Rate (gpm):</td> <td></td> <td>8</td> <td>8</td> <td>8</td> <td></td> </tr> <tr> <td>Date Measured: 5/12/20</td> <td>Pumping Level (ft):</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				Date:	5/12/20	5/12/20	5/12/20	5/12/20	5/12/20	Total Well Depth: 204 ft.	Time:	Start	10 min	20 min	30 min	40 min	Static Level: 163 ft.	Rate (gpm):		8	8	8		Date Measured: 5/12/20	Pumping Level (ft):					
	Date:	5/12/20	5/12/20	5/12/20	5/12/20	5/12/20																								
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Static Level: 163 ft.	Rate (gpm):		8	8	8																									
Date Measured: 5/12/20	Pumping Level (ft):																													
12. Disinfection: Type: HTH Amt. Used: 8 oz																														
13. Notification: Was Notification Required Prior to Construction? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No, Date Notification Given:																														
14. Water Quality analysis available: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please submit with this report.																														
15. Remarks:																														
16. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402-2. The filing of a document that contains false statements is a violation of section 37-91-108(1)(e), C.R.S., and is punishable by fines up to \$1000 and/or revocation of the contracting license. If filing online, the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.																														
Company Name: Barnhart Pump Company	Email: info@barnhartpump.com	Phone w/area code: 719-683-7512																												
		License Number: 1122																												
Mailing Address: 5015 E Blaney Road Falcon CO 80831																														
Sign (or enter name if filing online) Steve Barnhart	Print Name and Title Owner	Date: 5/15/2020																												

**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

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

REPLACEMENT PLAN - DETERMINATION OF WATER RIGHT NO. 3668-BD

AQUIFER: DAWSON

APPLICANT: JERRY AND SHARON LOMAX

In compliance with Section 37-90-107.5, CRS, and the Designated Basin Rules, 2 CCR 410-1 ("Rules" or "Rule"), Jerry and Sharon Lomax ("Applicant") submitted an application for a replacement plan to allow the withdrawal of ground water from the Dawson Aquifer in accordance with Determination of Water Right No. 3668-BD.

FINDINGS

1. Pursuant to Section 37-90-107(7), CRS, in a Findings and Order dated April 22, 2019, the Ground Water Commission ("Commission") approved a Determination of Water Right, no. 3668-BD, for the Dawson Aquifer ("Aquifer"), summarized as follows.
 - a. The determination quantified an amount of water from beneath 15 acres of overlying land generally described as the NW 1/4 of the NE 1/4 of the SE 1/4 and the W 1/2 of the SW 1/4 of the NE 1/4 of the SE 1/4, Section 15, Township 12 South, Range 65 West, Sixth P.M., in El Paso County.
 - b. The total volume of underlying ground water that may be withdrawn from the Aquifer shall not exceed 1,060 acre-feet and the allowed average annual amount of ground water that may be withdrawn from the Aquifer shall not exceed 10.6 acre-feet.
 - c. The use of the allowed amount of underlying ground water shall be limited to the following beneficial uses: domestic including in home use, lawn and garden irrigation and domestic animal watering; agricultural; irrigation indoor and outdoor, including green house irrigation; commercial; recreation, including indoor pool; piscatorial including piscatorial associated with a pond; and replacement.
 - d. In accordance with Rule 5.3.6 the withdrawal of the subject ground water 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 ground water 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 required prior to approval of well permits for wells to withdraw the subject ground water.
2. The subject water is Designated Ground water 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 Commission has jurisdiction.
3. Withdrawal of the subject ground water would deplete the alluvial aquifer of the Kiowa-Bijou Designated Ground Water Basin and the alluvial aquifer of the Upper Black Squirrel Creek Designated Ground Water Basin, both of which, according to Rules 5.2.4.2 and 5.2.6.2, respectively, have been determined to be over appropriated. Such depletion

would unreasonably impair existing alluvial rights withdrawing water from those alluvial aquifers.

4. Pursuant to Rule 5.6.1 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 Ground Water Basin and the alluvial aquifer of the Upper Black Squirrel Creek Designated Ground Water 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 subject application for the replacement plan was received by the Commission on October 29, 2018.
7. The Applicant proposes to divert 3.5 acre-feet annually from the Dawson Aquifer for a period of 300 years. The Dawson aquifer water will be withdrawn through three wells to be located on three lots. The Dawson aquifer wells are proposed to divert a combined total of 3.5 acre-feet of water annually for household use inside three single family dwellings, irrigation of lawn and gardens, watering of domestic animals, greenhouse irrigation, piscatorial/pond, recreation, agricultural, replacement and commercial.
8. At a continuous withdrawal of 3.5 acre-feet annually for 300 years, total depletions to the alluvial aquifer systems of the Kiowa-Bijou Designated Ground Water Basin and Upper Black Squirrel Creek Designated Ground Water Basin would steadily increase to 0.113 acre-feet per year in the 300th year, which is equal to 3.22% of pumping, as shown in Exhibit A.
9. The Applicant proposes to provide 0.18 acre-feet per year of replacement water to the alluvial aquifer system of the Upper Black Squirrel Creek Designated Ground Water Basin. The proposed source of replacement water is septic and leaching field return flows from the in-house use of the ground water 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 each lot uses a total annual amount for in-house use of 0.20 acre-feet, the return flow per lot would be 0.18 acre-feet annually, and the return flows under the plan will total 0.54 acre-feet per year for all three 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 Ground Water 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. So long as the septic and leaching treatment systems for the in-house use of the water are constructed and operated in compliance with state and county health department standards the plan would not cause unreasonable impairment of water quality of the alluvial aquifer.
12. 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. 3668-BD.
13. In accordance with Rule 5.6.2 the application was referred to the Upper Black Squirrel Creek Ground Water Management District on February 8, 2019 requesting written

recommendations concerning this application. On March 13, 2019 the District submitted a comment letter with written recommendations for this determination of water rights and the Ground Water Commission has considered those comments.

14. In accordance with Sections 37-90-107.5 and 37-90-112, CRS, the application was published in the Ranchland News newspaper on February 14, 2019 and February 21, 2019. No objections to the application were received within the time limit set by statute.
15. The Commission Staff has evaluated the application pursuant to Section 37-90-107.5, CRS, and the requirements of Rule 5.3.6.2(C) and Rule 5.6.
16. According to Rule 5.6.2 of the Designated Basin Rules:
 - a. The Applicant has the burden of proving the adequacy of the plan in all respects.
 - b. The Commission Staff shall propose any additional terms and conditions or limitations which are necessary to prevent material injury and to ensure that the plan is administrable and enforceable.
17. Based on the above, no material injury will occur to the water rights of large capacity wells producing from the alluvial aquifer of the Kiowa-Bijou Designated Ground Water Basin and the alluvial aquifer of the Upper Black Squirrel Creek Designated Ground Water Basin, due to diversions from the Dawson Aquifer, if operated under this replacement plan, subject to the conditions given below.

ORDER

In accordance with Section 37-90-107.5, CRS, and the Designated Basin Rules, the Colorado Ground Water Commission orders that the application for a replacement plan to allow the withdrawal of ground water from the Dawson Aquifer underlying 15 acres that are the subject of Determination of Water Right no. 3668-BD is approved subject to the following conditions:

18. The Dawson Aquifer water will be withdrawn through three wells to be located on three lots. The allowed use of ground water for the wells under this plan is household use inside three single family dwellings, irrigation of lawn and gardens, watering of domestic animals, greenhouse irrigation, piscatorial/pond, recreation, agricultural, replacement and commercial
19. The allowed annual amount of ground water to be withdrawn from the aquifer by all wells operating under this plan shall not exceed 3.5 acre-feet.
20. A totalizing flow meter shall be installed on each well. The well owner shall maintain the meter in good working order.
21. Permanent records of all withdrawals of ground water 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 upon request.
22. 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.

23. Return flows from in-house use of ground water shall occur through individual on-lot non-evaporative septic systems located within the 15 acres of overlying land that are the subject of Determination of Water Right No. 3668-BD.
24. The septic systems must be constructed and operated to state and county health department standards.
25. 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.
26. The Applicant or their successor(s) are responsible for ensuring that replacement water is provided to the alluvial aquifer as required by this plan, and that the replacement prevents any material injury to the water rights of other appropriators. 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.
27. 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.
28. 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 other use is allowed to be served by any of the wells.
29. 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 make the required replacement deliveries.
30. The Applicant or their successor(s) must gather, record and maintain permanent records of all information pertaining to operation of this plan, which shall include, but is not be 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.
 - 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 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.

Aquifer: Upper Dawson

Applicant: Jerry and Sharon Lomax

31. 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, evidence of the sale and notification to the new owner of their responsibility under the replacement plan shall accompany that year's accounting.
32. Any covenants adopted for this subdivision should contain a description of the replacement plan, including the limitations on water use for each lot, metering of well pumping, and how the plan is to be administered.
33. 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 ground water.
34. All terms and conditions of Determination of Water Right No. 3668-BD must be met.
35. Pursuant to Designated Basin Rule 5.6.1(F), the Commission retains jurisdiction to modify or revoke approval of this replacement plan if monitoring or operating experience reveals that the plan results in any material injury to water rights of other appropriators or unreasonable impairment to water quality.
36. A copy of this Findings and Order shall be recorded by the Applicant in the real property records of El Paso County, so that a title examination of the above described property, or any part thereof, shall reveal to all future purchasers the existence of this replacement plan. The terms and conditions of this replacement plan shall be considered to be a covenant on and running with the subject property.

Dated this Dated this 29th day of April, 2019.

By: 

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



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

F&ORP3668-BD.docx

Prepared by: aat

**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.: 3665-BD

AQUIFER: Laramie-Fox Hills

APPLICANT: Jerry and Sharon Lomax

In compliance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Jerry and Sharon Lomax (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 October 12, 2018.
2. The Applicant requests a determination of right to designated ground water in the Laramie-Fox Hills Aquifer (hereinafter "Aquifer") underlying 15 acres, generally described as the NW 1/4 of the NE 1/4 of the SE 1/4 and the W 1/2 of the SW 1/4 of the NE 1/4 of the SE 1/4, Section 15, Township 12 South, Range 65 West, Sixth P.M., in El Paso County. According to a signed Ownership Statement dated October 7, 2018, attached hereto as Exhibit A, the Applicant owns the 15 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 including in home use, lawn and garden irrigation and domestic animal watering; agricultural; irrigation indoor and outdoor; commercial; recreation, including indoor pool; piscatorial including piscatorial associated with a pond; and replacement. The Applicant's proposed place of use of the Underlying Ground Water is the above described 15 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 15 acres of Overlying Land claimed by the applicant is 416 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 185 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 4.16 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 February 8, 2019, 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. On March 13, 2019 the District submitted a comment letter with written recommendations for this determination of water rights and the Ground Water Commission has considered those comments.
 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 February 14, 2019 and February 21, 2019. 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 15 acres of land, generally described as the NW 1/4 of the NE 1/4 of the SE 1/4 and the W 1/2 of the SW 1/4 of the NE 1/4 of the SE 1/4, Section 15, Township 12 South, Range 65 West, Sixth 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 4.16 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 416 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 including in home use, lawn and garden irrigation and domestic animal watering; agricultural; irrigation indoor and outdoor; commercial; recreation, including indoor pool; piscatorial including piscatorial associated with a pond; and replacement. The place of use shall be limited to the above described 15 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 15 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 15 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 29th day of April, 2019.

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


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

**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.: 3666-BD

AQUIFER: Arapahoe

APPLICANT: Jerry and Sharon Lomax

In compliance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Jerry and Sharon Lomax (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 October 12, 2018.
2. The Applicant requests a determination of right to designated ground water in the Arapahoe Aquifer (hereinafter "Aquifer") underlying 15 acres, generally described as the NW 1/4 of the NE 1/4 of the SE 1/4 and the W 1/2 of the SW 1/4 of the NE 1/4 of the SE 1/4, Section 15, Township 12 South, Range 65 West, Sixth P.M., in El Paso County. According to a signed Ownership Statement dated October 7, 2018, attached hereto as Exhibit A, the Applicant owns the 15 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 including in home use, lawn and garden irrigation and domestic animal watering; agricultural; irrigation indoor and outdoor; commercial; recreation, including indoor pool; piscatorial including piscatorial associated with a pond; and replacement. The Applicant's proposed place of use of the Underlying Ground Water is the above described 15 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 15 acres of Overlying Land claimed by the applicant is 638 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 250 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 6.38 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 February 8, 2019, 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. On March 13, 2019 the District submitted a comment letter with written recommendations for this determination of water rights and the Ground Water Commission has considered those comments.
 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 February 14, 2019 and February 21, 2019. 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 15 acres of land, generally described as the NW 1/4 of the NE 1/4 of the SE 1/4 and the W 1/2 of the SW 1/4 of the NE 1/4 of the SE 1/4, Section 15, Township 12 South, Range 65 West, Sixth 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 6.38 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 638 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 including in home use, lawn and garden irrigation and domestic animal watering; agricultural; irrigation indoor and outdoor; commercial; recreation, including indoor pool; piscatorial including piscatorial associated with a pond; and replacement. The place of use shall be limited to the above described 15 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 15 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 15 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 29th day of April, 2019.

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


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

Prepared by: aat
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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.: 3667-BD

AQUIFER: Denver

APPLICANT: Jerry and Sharon Lomax

In compliance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Jerry and Sharon Lomax (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 October 12, 2018.
2. The Applicant requests a determination of right to designated ground water in the Denver Aquifer (hereinafter "Aquifer") underlying 15 acres, generally described as the NW 1/4 of the NE 1/4 of the SE 1/4 and the W 1/2 of the SW 1/4 of the NE 1/4 of the SE 1/4, Section 15, Township 12 South, Range 65 West, Sixth P.M., in El Paso County. According to a signed Ownership Statement dated October 7, 2018, attached hereto as Exhibit A, the Applicant owns the 15 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 including in home use, lawn and garden irrigation and domestic animal watering; agricultural; irrigation indoor and outdoor; commercial; recreation, including indoor pool; piscatorial including piscatorial associated with a pond; and replacement. The Applicant's proposed place of use of the Underlying Ground Water is the above described 15 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 15 acres of Overlying Land claimed by the applicant is 829 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 325 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 8.29 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 February 8, 2019, 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. On March 13, 2019 the District submitted a comment letter with written recommendations for this determination of water rights and the Ground Water Commission has considered those comments.
 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 February 14, 2019 and February 21, 2019. 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 15 acres of land, generally described as the NW 1/4 of the NE 1/4 of the SE 1/4 and the W 1/2 of the SW 1/4 of the NE 1/4 of the SE 1/4, Section 15, Township 12 South, Range 65 West, Sixth 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 8.29 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 829 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 including in home use, lawn and garden irrigation and domestic animal watering; agricultural; irrigation indoor and outdoor; commercial; recreation, including indoor pool; piscatorial including piscatorial associated with a pond; and replacement. The place of use shall be limited to the above described 15 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 15 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 15 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 29th day of April, 2019.

By: 

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



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

Prepared by: aat
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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.: 3668-BD

AQUIFER: Dawson

APPLICANT: Jerry and Sharon Lomax

In compliance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Jerry and Sharon Lomax (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 October 12, 2018.
2. The Applicant requests a determination of right to designated ground water in the Dawson Aquifer (hereinafter "Aquifer") underlying 15 acres, generally described as the NW 1/4 of the NE 1/4 of the SE 1/4 and the W 1/2 of the SW 1/4 of the NE 1/4 of the SE 1/4, Section 15, Township 12 South, Range 65 West, Sixth P.M., in El Paso County. According to a signed Ownership Statement dated October 7, 2018, attached hereto as Exhibit A, the Applicant owns the 15 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 including in home use, lawn and garden irrigation and domestic animal watering; agricultural; irrigation indoor and outdoor; commercial; recreation, including indoor pool; piscatorial including piscatorial associated with a pond; and replacement. The Applicant's proposed place of use of the Underlying Ground Water is the above described 15 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 15 acres of Overlying Land claimed by the applicant is 1,060 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.
 - 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 355 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 10.6 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. 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.
13. On February 8, 2019, 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. On March 13, 2019 the District submitted a comment letter with written recommendations for this determination of water rights and the Ground Water Commission has considered those comments.
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 February 14, 2019 and February 21, 2019. 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 15 acres of land, generally described as the NW 1/4 of the NE 1/4 of the SE 1/4 and the W 1/2 of the SW 1/4 of the NE 1/4 of the SE 1/4, Section 15, Township 12 South, Range 65 West, Sixth 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 10.6 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 1,060 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. 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.
21. The use of the allowed amount of Underlying Ground Water from this allocation shall be limited to the following beneficial uses: domestic including in home use, lawn and garden irrigation and domestic animal watering; agricultural; irrigation indoor and outdoor; commercial; recreation, including indoor pool; piscatorial including piscatorial associated with a pond; and replacement. The place of use shall be limited to the above described 15 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 15 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.
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 15 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 29th day of April, 2019.

By: 

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



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

Prepared by: aat
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