FORM NO. GWS-76 05/2011

WATER SUPPLY INFORMATION SUMMARY

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

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

1. NAME OF DEVELOPMENT AS PROPOSED: OHANA ACRES

2. LAND USE ACTION: Vacate & Replat

3. NAME OF EXISTING PARCEL AS RECORDED:
SUBDIVISION: VIL Filing #1 , FILING (UNIT) , BLOCK , LOT

4. TOTAL ACREAGE: 14.31 | 5. NUMBER OF LOTS PROPOSED 4 | PLAT MAP ENCLOSED? ☒ YES or ☐ NO

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

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

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

If yes, describe the previous action: 40 ACRES divided in half Recorded Oct 13, 1995

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

1/4 of the NW 1/4, Section 30, Township 13 ☐ N or ☒ S, Range 63 ☐ E or ☒ W

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

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

Easting:

Northing:

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

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

9. ESTIMATED WATER REQUIREMENTS

USE	WATER REQUIREMENTS Gallons per Day	Acre-Feet per Year
HOUSEHOLD USE # 4 of units		1/2
COMMERCIAL USE # 0 of S. F	Lot 1	.50
IRRIGATION # 1/4 of acres	Lot 2	.50
STOCK WATERING # 2 of head	Lot 3	.50
OTHER:	Lot 4	.50
TOTAL 2 AF for 4 Lots 3004R	.50 x 4 lots	= 2 AF / 4R

10. WATER SUPPLY SOURCE

☒ EXISTING WELL ☐ DEVELOPED SPRING

WELL PERMIT NUMBERS 53485 A

☒ NEW WELLS -

PROPOSED AQUIFERS – (CHECK ONE)

☐ ALLUVIAL ☐ UPPER ARAPAHOE
☐ UPPER DAWSON ☒ LOWER ARAPAHOE
☐ LOWER DAWSON ☐ LARAMIE FOX HILLS
☐ DENVER ☐ DAKOTA
☐ OTHER:

☐ MUNICPAL
☐ ASSOCIATION
☐ COMPANY
☐ DISTRICT
NAME
LETTER OF COMMITMENT FOR SERVICE ☐ YES or ☐ NO

WATER COURT DECREE CASE NUMBERS: 3714 BD

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

12. TYPE OF SEWAGE DISPOSAL SYSTEM

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

To: Gary Hammann
17825 Jones Road
Peyton CO 80831

Date: June 13, 2018

RE: Groundwater Evaluation

The following presents the results of the groundwater availability evaluation for the 19.31 Acre property located at 17825 Jones Road, Peyton in El Paso County and with legal location as Lot 1 VIL SUB FIL1. The property is located in Upper Black Squirrel Groundwater Management District.

The purpose of this groundwater assessment was to quantify the amount of groundwater underlying the property available for a proposed subdivision of the existing property into four (4) lots. Review of existing water rights in the area confirm the water underlying the Property is available and has not been previously claimed and is not encumbered. There is one well on the property that will be re-permitted under the determination of water rights and replacement plan.

Proposed Use and Existing and Proposed Wells

There is an existing well having permit 53486 which is an alluvial well. The well will need to be abandoned and a new well drilled for the existing residence under the Determination of water rights and replacement plan. The proposed use is for domestic, agricultural, commercial and replacement.

All water will be used on the overlying land and wastewater will be treated with an individual non-evaporative septic system.

Methodology

The Denver Basin atlas maps, neighboring well data along with geophysical data, if available, were used to verify the State's assessment tool (SB5) which generates the physical parameters of the groundwater aquifers. The State's approved groundwater model (AUG3) was used to evaluate the amount of depletion that occurs to the hydraulically connected stream system(s).

Results

1. Aquifer Assessment.
   The table below represents the total estimated amount of water that is available in each aquifer under the Property. Aquifer tops and bottoms were corrected from SB5 values based on the Denver Basin Atlas Maps.

Elevation 6420	Acres 19.31			NW ¼ NW ¼ Sec 30 T13S R63W				
Denver Basin Aquifer	Elevation (ft amsl)		Net Sand	Depth (feet)		Total	100 Year	300 Year
	Bottom	Top	(ft)	Bottom	Top	(AF)	(AF)	(AF)
Denver (NNT)	6125	6405	155	295	15	509	5.05	1.68
Arapahoe (NNT)	5525	6010	228	895	400	748	7.48	2.49
Laramie Fox Hills (NT)	4915	5210	207	1325	1210	600	6.0	-

The Denver and Arapahoe aquifers are not non-tributary and use from this aquifer will require a replacement plan. The Laramie Fox hills aquifer is non-tributary and all groundwater from this aquifer minus 2 percent (.12AF) may be pumped out at a rate not to exceed a 100-year rate of depletion. El Paso County requires a 300-year water supply for new subdivisions therefore a 300 year pumping duration was evaluated and is supported by the stream depletion analysis (below).

3. Stream Depletions.
   Actual stream depletions resulting from pumping the Denver and Arapahoe aquifer will need to be replaced during the pumping period.

4. Depletion Analysis.
   A stream depletion analysis for the not non-tributary Denver and Arapahoe aquifers was accomplished using the states' AUG3 groundwater model. Total Depletion in the Denver Aquifer was 1.25 AF at 100 years and 1.57 AF at 300 years pumping 1.67 AF/Yr. With household returns at 0.68 AF/yr, there would be an insufficiency of replacement water to prevent injury to Upper Black Squirrel Creek using the Denver aquifer as a source of groundwater.

   The Arapahoe depletion analysis indicates that depletion in the 100th year of pumping 2.0 AF/Yr (0.5 AF/yr per home) is 0.004 AF or 0.181 percent and in the 300th and final year of pumping, is 0.77 AF or 3.87 percent of pumping. All depletion occurs to Upper Black Squirrel Creek. Septic return flows based on an in home use of 0.25 AF/Yr with a presumptive 10% consumption results in 0.23 AF per year returning to the stream system; with four homes the total replaced is 0.68 AF/Yr. This exceeds the maximum total depletion needed to prevent injury to surface water rights.

Summary Paragraph for Publication

The applicant proposes to divert 2.0 acre-feet annually for 300 years from the Arapahoe aquifer for use on the overlying land comprised of four lots on a total of 19.31 Acres in the NW1/4 WW1/4 Section 30 Township 13S Range 63W. Groundwater for each lot will be

Arapahoe Aquifer 2.47 AF/Yr for 300 Yrs

Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)	Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)	Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)	Year	Depletion as a % of Pumping	Annual Depletion (AF/YR)
5	0.00	0.000	105	0.20	0.005	205	1.59	0.039	305	4.00	0.099
10	0.00	0.000	110	0.24	0.006	210	1.70	0.042	310	4.13	0.102
15	0.00	0.000	115	0.28	0.007	215	1.80	0.045	315	4.27	0.105
20	0.00	0.000	120	0.32	0.008	220	1.91	0.047	320	4.40	0.109
25	0.00	0.000	125	0.37	0.009	225	2.02	0.050	325	4.54	0.112
30	0.00	0.000	130	0.42	0.010	230	2.13	0.053	330	4.67	0.115
35	0.00	0.000	135	0.47	0.012	235	2.25	0.055	335	4.80	0.119
40	0.01	0.000	140	0.53	0.013	240	2.36	0.058	340	4.94	0.122
45	0.01	0.000	145	0.59	0.015	245	2.48	0.061	345	5.07	0.125
50	0.01	0.000	150	0.66	0.016	250	2.60	0.064	350	5.20	0.129
55	0.02	0.000	155	0.73	0.018	255	2.72	0.067	355	5.34	0.132
60	0.03	0.001	160	0.80	0.020	260	2.84	0.070	360	5.46	0.135
65	0.04	0.001	165	0.87	0.022	265	2.97	0.073	365	5.59	0.138
70	0.05	0.001	170	0.95	0.024	270	3.09	0.076	370	5.72	0.141
75	0.06	0.002	175	1.04	0.026	275	3.22	0.080	375	5.84	0.144
80	0.08	0.002	180	1.12	0.028	280	3.35	0.083	380	5.96	0.147
85	0.10	0.002	185	1.21	0.030	285	3.48	0.086	385	6.08	0.150
90	0.12	0.003	190	1.30	0.032	290	3.61	0.089	390	6.19	0.153
95	0.14	0.004	195	1.40	0.035	295	3.74	0.092	395	6.30	0.156
100	0.17	0.004	200	1.49	0.037	300	3.87	0.096	400	6.41	0.158

Hammann

Year	Depletion as a % of Pumping	Depletion (AF/YR)	Year	Depletion as a % of Pumping	Depletion (AF/YR)	Year	Depletion as a % of Pumping	Depletion (AF/YR)	Year	Depletion as a % of Pumping	Depletion (AF/YR)
5	0.00	0.000	105	0.20	0.004	205	1.60	0.032	305	4.00	0.080
10	0.00	0.000	110	0.24	0.005	210	1.70	0.034	310	4.14	0.083
15	0.00	0.000	115	0.28	0.006	215	1.80	0.036	315	4.27	0.085
20	0.00	0.000	120	0.32	0.006	220	1.91	0.038	320	4.40	0.088
25	0.00	0.000	125	0.37	0.007	225	2.02	0.040	325	4.54	0.091
30	0.00	0.000	130	0.42	0.008	230	2.13	0.043	330	4.67	0.093
35	0.00	0.000	135	0.47	0.009	235	2.25	0.045	335	4.81	0.096
40	0.01	0.000	140	0.53	0.011	240	2.36	0.047	340	4.94	0.099
45	0.01	0.000	145	0.59	0.012	245	2.48	0.050	345	5.07	0.101
50	0.01	0.000	150	0.66	0.013	250	2.60	0.052	350	5.20	0.104
55	0.02	0.000	155	0.73	0.015	255	2.72	0.054	355	5.34	0.107
60	0.03	0.001	160	0.80	0.016	260	2.84	0.057	360	5.47	0.109
65	0.04	0.001	165	0.87	0.017	265	2.97	0.059	365	5.59	0.112
70	0.05	0.001	170	0.95	0.019	270	3.09	0.062	370	5.72	0.114
75	0.06	0.001	175	1.04	0.021	275	3.22	0.064	375	5.84	0.117
80	0.08	0.002	180	1.12	0.022	280	3.35	0.067	380	5.96	0.119
85	0.10	0.002	185	1.21	0.024	285	3.48	0.070	385	6.08	0.122
90	0.12	0.002	190	1.30	0.026	290	3.61	0.072	390	6.19	0.124
95	0.14	0.003	195	1.40	0.028	295	3.74	0.075	395	6.31	0.126
100	0.17	0.003	200	1.49	0.030	300	3.87	0.077	400	6.41	0.128

Summary Table 1

Applicant Name	Hammann
Case No. or Receipt No	0
Number of Years of Pumping	100
Pumping Rate (ac-ft/yr)	2.00
Total Volume (ac-ft)	200
Legal for All Sections	SEC 30 T13S R63
Model	AR09
Aquifer	ARAPAHOE

100th Year Stream Depletion

Streams	100th Year Depletion (ac-ft/yr)	q/Q (%)
MONUMENT	0.000	0.000
KETTLE	0.000	0.000
COTTONWOOD	0.000	0.000
SHOOKS RUN	0.000	0.000
SAND-DIV2	0.000	0.000
JIMMY CAMP	0.000	0.008
BLACK SQUIRREL-UBSCDB	0.003	0.173
Total	**0.004**	**0.181**

South Platte (Division 1)	0.000	0.000
Arkansas (Division 2)	0.000	0.008
Designated Basin	0.003	0.173

Summary Table 2

Model Period (years)	300
Applicant Name	Hammann
Case No. or Receipt No	0
Number of Years of Pumping	100
Pumping Rate (ac-ft/yr)	2.00
Total Volume (ac-ft)	200
Legal for All Sections	SEC 30 T13S R63
Model	AR09
Aquifer	ARAPAHOE

Maximum Stream Depletion

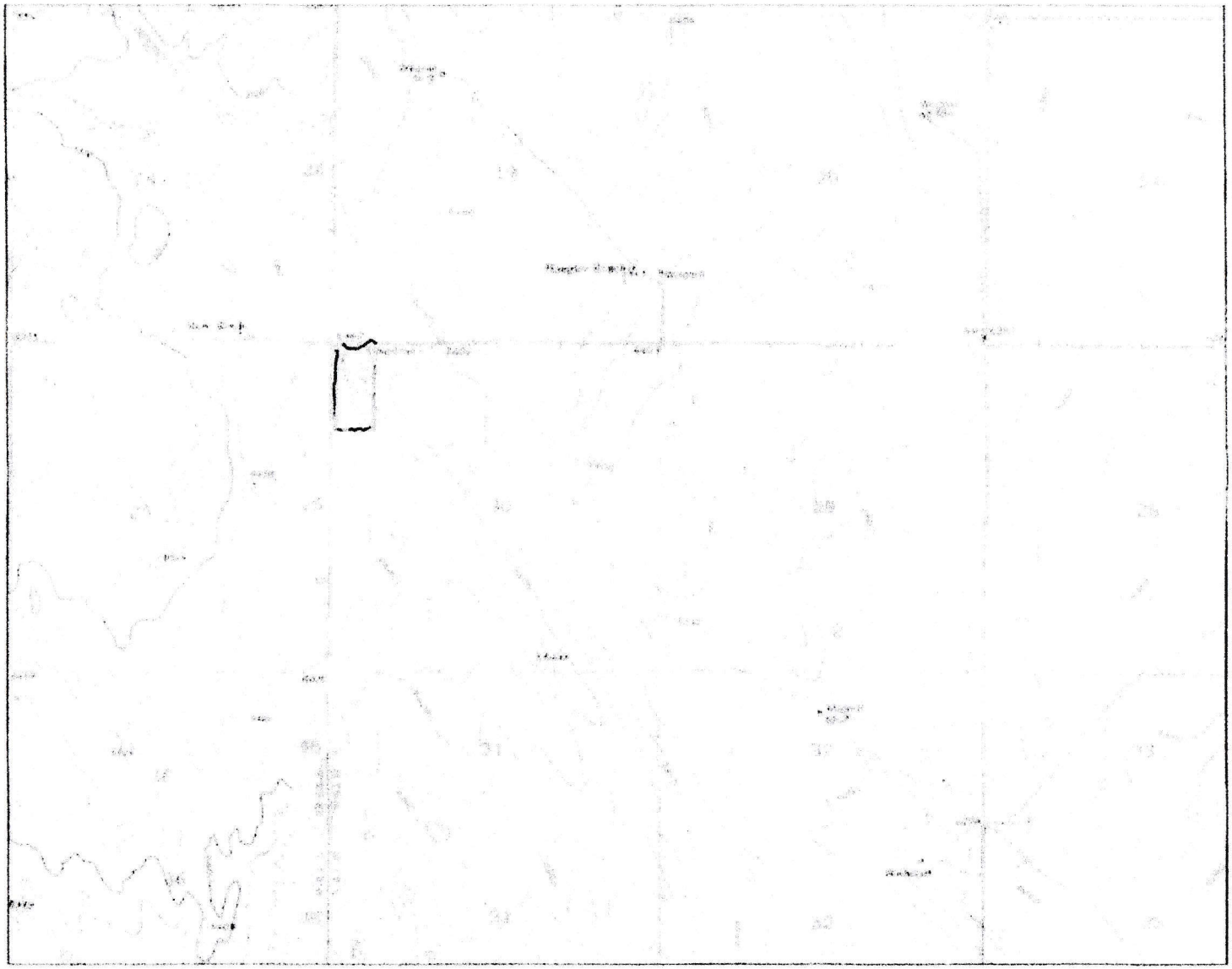
Streams	Max.Depletion during model period (ac-ft/yr)	Year during model period	Max. Deple during pumping p (ac-ft/y
MONUMENT	0.000	400	0.000
KETTLE	0.000	400	0.000
COTTONWOOD	0.000	400	0.000
SHOOKS RUN	0.000	400	0.000
SAND-DIV2	0.001	400	0.000
JIMMY CAMP	0.020	400	0.000
BLACK SQUIRREL-UBSCDB	0.128	400	0.003
Total	**0.149**	**400**	**0.004**

South Platte Basin	---	---	---
Arkansas Basin	0.149	400	---
Designated Basin	0.128	400	---

CDSS

Colorado's Decision Support Systems

Property Location

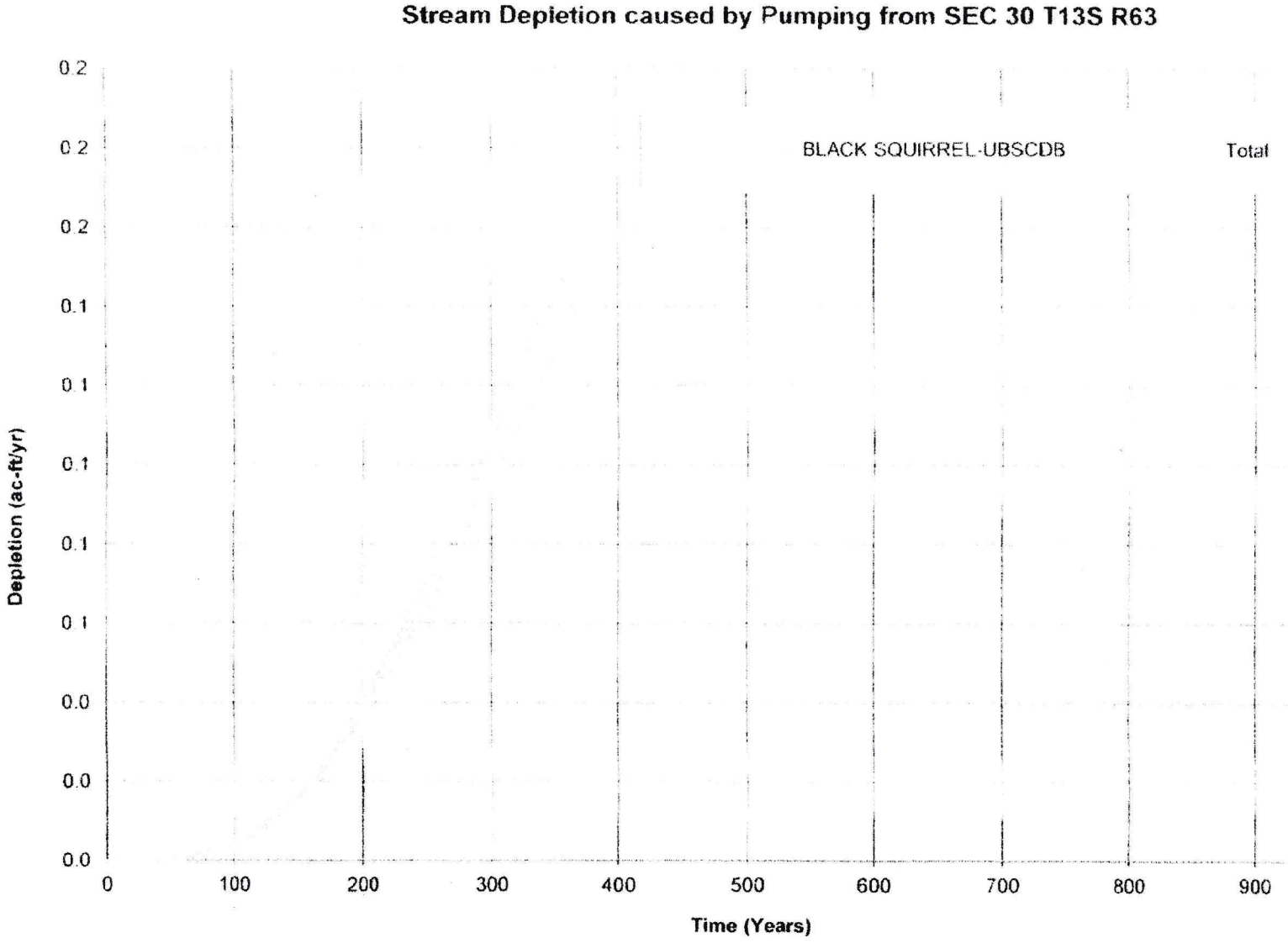


4,677 0 2,339 4,677 Feet

1 : 28,064

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

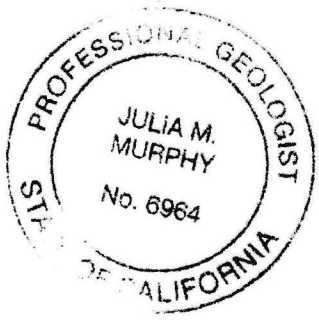
Date Prepared:


Stream Depletion caused by Pumping from SEC 30 T13S R63
BLACK SQUIRREL-UBSCDB
Total
Depletion (ac-ft/yr)
0.2
0.2
0.2
0.1
0.1
0.1
0.1
0.1
0.0
0.0
0.0
0
100
200
300
400
500
600
700
800
900
Time (Years)

proposed pumping will cause depletion to the alluvial aquifer of Upper Black Squirrel Creek, with depletions increasing annually to 0.077 acre-feet in the 300th year or 0.77 percent of the annual amount withdrawn. The applicant proposes to provide actual replacement of depletions to the alluvium of Black Squirrel Creek. The proposed source of replacement water is four individual non-evaporative septic systems and leach field return flows, one on each proposed lot, from in-house use of 0.25 AF/Yr to produce 0.23 AF/Yr per residence of replacement water for a total of 0.90 AF/Yr which is sufficient to meet actual depletions during the pumping period.

Sincerely,

Julia M Murphy MS PG
Professional Geologist /Hydrogeologist
CA Lic 6964



be complete where applicable. Type or print in BLACK INK. No overstrikes or erasures unless initialed.

FOR: (X) A PERMIT TO USE GROUND WATER
(X) A PERMIT TO CONSTRUCT A WELL
( ) A PERMIT TO INSTALL A PUMP
(X) REPLACEMENT FOR NO. 53485
( ) OTHER
WATER COURT CASE NO.

STATE ENGINEER COLO.

MAR 2 6 1986

WATER RESOURCES STATE ENGINEER COLO.

(1) APPLICANT - mailing address

NAME Jimmy R. & Virginia L. Daniels (Formerly Virginia L. Baker)
STREET 34281 Rd 32
CITY La Junta (State) Colo (Zip) 81050
TELEPHONE NO. 303 - 853-6274

(2) LOCATION OF PROPOSED WELL

County El Paso
NW ¼ of the NW ¼, Section 30
Twp 13 S. (N/S) Rng. 63 W. (E/W) 6th P.M.

(3) WATER USE AND WELL DATA

Proposed maximum pumping rate (gpm) 8 - 10
Average annual amount of ground water to be appropriated (acre-feet): 1
Number of acres to be irrigated: [redacted] 1
Proposed total depth (feet): 18 - 80'
Aquifer ground water is to be obtained from:
Alluvium
Owner's well designation House & Stock

GROUND WATER TO BE USED FOR:

(X) HOUSEHOLD USE ONLY - no irrigation (0)
(X) DOMESTIC (1)
(X) LIVESTOCK (2)
( ) COMMERCIAL (4)
( ) INDUSTRIAL (5)
( ) IRRIGATION (6)
( ) MUNICIPAL (8)
( ) OTHER (9)
DETAIL THE USE ON BACK IN (11)

(4) DRILLER

Name Bill Townly c/o Con-America Drilling Inc
Street Box 446 Simla
City [redacted] (State) Colo (Zip) [redacted] 80835
Telephone No. 541-2967 Lic. No. 1149

FOR OFFICE USE ONLY: DO NOT WRITE IN THIS COLUMN

Receipt No. 63412 A
Basin 4 Dist. 12

CONDITIONS OF APPROVAL

This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

ISSUED PURSUANT TO SECTION 37-90-105, C.R.S.

APPROVED AS A REPLACEMENT OF WELL 53485 THE EXISTING WELL MUST BE PLUGGED AND ABANDONED ACCORDING TO THE REVISED AND AMENDED RULES AND REGULATIONS FOR WATER WELL AND PUMP INSTALLATION CONTRACTORS. THE WELL ABANDONMENT AFFIDAVIT FORM MUST BE SUBMITTED WITHIN 60 DAYS AFTER THE CONSTRUCTION OF THE REPLACEMENT WELL, AFFIRMING THAT WELL 53485 WAS PLUGGED AND ABANDONED.

THE MAXIMUM PUMPING RATE OF THIS WELL SHALL NOT EXCEED 10 G.P.M.

THE AVERAGE ANNUAL APPROPRIATION OF THIS WELL SHALL NOT EXCEED 1 ACRE-FOOT (FEET).

THIS WELL MUST BE CONSTRUCTED TO WITHDRAW WATER ONLY FROM THE ALLUVIUM OF BLACK SQUIRREL CREEK OR ITS TRIBUTARIES. THE DEPTH OF THIS WELL SHALL NOT EXCEED 35 FEET OR THE DEPTH AT WHICH SANDSTONE OR SHALE IS FIRST ENCOUNTERED.

CONTINUED ON PAGE 2

APPLICATION APPROVED

PERMIT NUMBER 53485-A
DATE ISSUED MAR 28 1988
EXPIRATION DATE MAR 28 1989

Jim A. Danielson
(STATE ENGINEER)

BY [signature]
ID 8-2-10 COUNTY 21

John Green
El Paso County Development Services Department
2880 International Circle, Suite 110
Colorado Springs, CO 80910

RE: Ohana Acres Minor Subdivision - Final Plat
File # SF2141
Part of the NW1/4 of the NW1/4 of Section 30, T13S, R63W, 6th P.M.
Upper Black Squirrel Creek Designated Ground Water Basin
Upper Black Squirrel Creek Groundwater Management District
Water Division 2, Water District 10

Dear Mr. Green:

We have reviewed the information received by this office on November 24, 2021, on the above referenced proposal to subdivide approximately 19.31 acres into four lots of approximately 5 acres each. The proposed minor subdivision will create four lots, all of which are intended for single-family residential use.

Water Supply Demand

According to the Water Supply Information Summary Sheet provided, the estimated water requirement for the subdivision totals 7.56 acre-feet/year, consisting of 1 acre-foot/year/lot for each of the four residential lots (4 acre-feet total), 3 acre-feet for the irrigation of 4 acres and 0.56 acre-feet for the watering of 10 head of livestock.

Source of Water Supply

Each lot will be served by a proposed individual on lot well withdrawing the allocation for the Arapahoe aquifer approved in Determination of Water Right No. 3714-BD.

Determination of Water Right No. 3714-BD was issued June 26th, 2019 pursuant to section 37-90-107(7), and the Designated Basin Rules, 2 CCR 410-1 ("Rules"). The determination allocates 755 acre-feet (7.55 acre-feet per year based on a 100-year aquifer life) of water from the Arapahoe aquifer underlying 19.31 acres generally described as a portion of the NW1/4 of the NW1/4 of Section 30, Township 13 South, Range 63 West of the 6th P.M. ("Overlying Land"). The allowed place of use is the above-described 19.31-acre Overlying Land. The use of the groundwater under 3714-BD is limited to in-home, lawn and gardens, domestic animals, commercial, agricultural, stock and replacement.

The proposed source of water for this subdivision is a bedrock aquifer in the Denver Basin. The State Engineer's Office does not have evidence regarding the length of time for which this source will be a physically and economically viable source of water. According to 37-90-107(7)(a), C.R.S., "Permits issued pursuant to this subsection (7) shall allow withdrawals on the basis of an aquifer life of 100 years." Based on this **allocation** approach, the annual amount of water determined in 3714-BD are equal to one percent of the total amount, as determined by rule 5.3.2.1 of the

amounts for a maximum of 100 years.

The *El Paso County Land Development Code*, Section 8.4.7.(B)(7)(b) states:

"(7) Finding of Sufficient Quantity
(b) Required Water Supply. The water supply shall be of sufficient quantity to meet the average annual demand of the proposed subdivision for a period of 300 years."

The State Engineer's Office does not have evidence regarding the length of time for which this source will "meet the average annual demand of the proposed subdivision." However, treating El Paso County' s requirement as an **allocation** approach based on three hundred years, the allowed average annual amount of withdrawal of 7.55 acre-feet/year would be reduced to one third of that amount, or 2.51 acre-feet/year, which is less than the annual demand for this subdivision.

The Water Supply Information Summary references existing well 53485-A. As described in the attached February 29, 1996 memorandum, which is a part of the well permit files, the well on the subject property was constructed in April 1986 without a valid well permit. In addition, a well construction report was never submitted for the well, therefore the source of the well is unknown. Should the applicant wish to use the existing well as a water supply for the proposed lots a valid large capacity well permit would need to be obtained for the well. Depending on the source of the well a Commission approved replacement plan may be required in order to obtain a large capacity well permit for the existing well.

State Engineer's Office Opinion

Based on the above and pursuant to section 30-28-136(1)(h)(I), C.R.S., the State Engineer's Office has not received enough information to render an opinion regarding the potential for causing material injury to decreed water rights, or the adequacy of the proposed water supply. **Prior to further review of the subdivision water supply plan the following information is required:**

1. The Applicant must provide a subdivision water supply plan that is consistent with El Paso County's 300-year water supply requirement and does not exceed the amounts allocated in the Determination.
2. The Applicant must clarify if the existing well on the property will as a water supply for the proposed lots or if the well will be plugged and abandoned prior to subdivision approval. If the well will be used then the Applicant must demonstrate that a valid large capacity well permit has been obtained for the well.

Should you or the applicant have any questions, please contact Melissa Van Der Poel at (303) 866-3581 x8208.

Sincerely,

Joanna Williams, P.E.
Water Resource Engineer

Ec: Division 1 Division Engineer
District 1 Water Commissioner
SEO Subdivision file: 28860

Sample Taken Date: 01/24/2022 Time: 0830

Address where sample was taken: 17825 Jones Road Peyton Colorado 80831

Sample site location: Bathtub | Collector Name: Gary | Chlorine: | mg/L

☐ Well ☐ City ☐ Recreational

☐ Surface/Spring ☐ Cistern ☐ Wastewater

Results to: Gary Hammann | Phone: (719) 650-5952

Mailing address: 17825 JONES RD

City/State/Zip: , CO

Fax/Email: gary.hsquared@gmail.com

Comments:

Colilert Results Per 100ml

■ Absence: Absence of coliform bacteria

☐ Presence: Presence of coliform bacteria & non-compliance with drinking water standards.

MPN/100 ml:

■ Absence: E. Coli: Escherichia coli bacteria

☐ Presence: E. Coli: Escherichia coli bacteria

MPN/100 ml:

DETERMINATION NO.: 3714-BD

AQUIFER: Arapahoe

APPLICANT: Gary Hammann and Darlene Noel-Hammann

In compliance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Gary Hammann and Darlene Noel-Hammann (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 July 24, 2018.

2. The Applicant requests a determination of right to designated ground water in the Arapahoe Aquifer (hereinafter "Aquifer") underlying 19.31 acres, generally described as Lot 1 VIL Filing No. 1 Subdivision and generally located in the NW1/4 of the NW1/4, Section 30, Township 13 South, Range 63 West, 6th P.M., in El Paso County. According to a signed Ownership Statement dated April 24, 2019, attached hereto as Exhibit A, the Applicant owns the 19.31 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: in home, lawn and gardens, domestic animals; commercial, agricultural; stock and replacement. The Applicant's proposed place of use of the Underlying Ground Water is the above described 19.31 acres of overlying land.

6. The quantity of water in the Aquifer underlying the 19.31 acres of Overlying Land claimed by the applicant is 755 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 230 feet.

7. Pursuant to Section 37-90-107(7)(a), C.R.S., and in accordance with the Designated Basin Rules, the Commission shall allocate the underlying ground water based on ownership of the overlying land and an aquifer life of one hundred years. Should the entire quantity of underlying ground water identified above be available for allocation, the allowed average annual amount of withdrawal from the Aquifer that could be allocated from beneath the Overlying Land would be 7.55 acre-feet per year.

8. 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.

9. 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.

10. 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.

11. 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.

12. On May 2, 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. Written recommendations from the district were received on May 21, 2019.

13. In accordance with Sections 37-90-107(7)(c)(II) and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on May 9, 2019 and May 16, 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 19.31 acres of land, generally described as Lot 1 VIL Filing No. 1 Subdivision and generally located in the NW1/4 of the NW1/4, Section 30, Township 13 South, Range 63 West, 6th P.M., further described in Exhibit A, is approved subject to the following conditions:

14. The allowed average annual amount of withdrawal of Underlying Ground Water from the Aquifer shall not exceed 7.55 acre-feet.

7. Pursuant to Section 37-90-107(7)(a), C.R.S., and in accordance with the Designated Basin Rules, the Commission shall allocate the underlying ground water based on ownership of the overlying land and an aquifer life of one hundred years. Should the entire quantity of underlying ground water identified above be available for allocation, the allowed average annual amount of withdrawal from the Aquifer that could be allocated from beneath the Overlying Land would be 7.55 acre-feet per year.

8. 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.

9. 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.

10. 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.

11. 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.

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ORDER

In accordance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, the Colorado Ground Water Commission orders that the application for determination of right to designated ground water in the Arapahoe Aquifer underlying 19.31 acres of land, generally described as Lot 1 VIL Filing No. 1 Subdivision and generally located in the NW1/4 of the NW1/4, Section 30, Township 13 South, Range 63 West, 6th P.M., further described in Exhibit A, is approved subject to the following conditions:

14. The allowed average annual amount of withdrawal of Underlying Ground Water from the Aquifer shall not exceed 7.55 acre-feet.

15. The total volume of Underlying Ground Water that may be withdrawn from the Aquifer pursuant to this Determination of Water Right shall not exceed 755 acre-feet.

16. 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.

17. 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.

18. 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.

19. 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.

20. The use of the allowed amount of Underlying Ground Water from this allocation shall be limited to the following beneficial uses: in home, lawn and gardens, domestic animals, commercial, agricultural, stock and replacement. The place of use shall be limited to the above described 19.31 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.

21. 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).

22. Wells withdrawing the allowed amount of Underlying Ground Water allocated herein are subject to the following conditions:

    a. The wells must be located on the above described 19.31 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 set 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.

23. A copy of this Findings and Order shall be recorded by the Applicant in the public records of the county in which the Overlying Land is located so that a title examination of the above described 19.31 acres of Overlying Land area, or any part thereof, shall reveal the existence of this determination.

24. 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 26th day of June, 2019.

By: Kevin G. Rein

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

Keith Vander Horst

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

Prepared by: aat
F&O3714-BD.doc

Hand completed forms must be completed in black or blue ink or typed.

1. Applicant Information

Name(s)

Gary Hammann / G & D Hammann Ohana Trust

Mailing address

17825 Jones Road

City | State | Zip code

Peyton | CO | 80831

Telephone (w/area code) | E-mail

719-650-5952 | gary.hsquared@gmail.com

2. Type Of Application (check applicable boxes)

- ☒ Construct new well
- ☒ Replace existing well
- ☐ Use existing well
- ☐ Change or increase use
- ☐ Change source (aquifer)
- ☐ Reapplication (expired permit)
- ☐ Rooftop precip. collection
- ☐ Other:

3. Refer To (if applicable)

Well permit # | Water Court case #

53486

Designated Basin Determination # | Well name or #

3714-BD | original replacement

4. Location Of Proposed Well (Important! See Instructions)

County

El Paso

nw 1/4 of the nw 1/4

Section | Township | N or S | Range | E or W | Principal Meridian

30 | 13 | ☐ N ☒ S | 63 | ☐ E ☒ W | sixth

Distance of well from section lines (section lines are typically not property lines)

Ft. from ☐ N ☐ S ☐ Ft. from ☐ E ☐ W

For replacement wells only – distance and direction from old well to new well

feet Direction

Well location address (include City, State, Zip) ☐ Check if well address is same as in Item 1.

Optional: GPS well location information in UTM format. GPS unit settings are as follows:

Format must be UTM

Zone 12 or ☐ Zone 13

Units must be Meters

Datum must be NAD83

Unit must be set to true north

Was GPS unit checked for above? ☒ YES

Easting: 543655

Northing: 4305357

Remember to set Datum to NAD83

5. Parcel On Which Well Will Be Located

(You must attach a current deed for the subject parcel)

A. You must check and complete *one* of the following:

- ☒ Subdivision: Name Vil
  - Lot 1 Block Filing/Unit 1A
- ☐ County exemption (attach copy of county approval & survey)
  - Name/# Lot #
- ☐ Parcel less than 35 acres, not in a subdivision attach a deed with metes & bounds description recorded prior to June 1, 1972, and current deed
- ☐ Mining claim (attach copy of deed or survey) Name/#:
- ☐ Square 40 acre parcel as described in Item 4
- ☐ Parcel of 35 or more acres (attach metes & bounds description or survey)
- ☐ Other: (attach metes & bounds description or survey)

B. # of acres in parcel: 19.31

C. Are you the owner of this parcel? ☒ YES ☐ NO

D. Will this be the only well on this parcel? ☐ YES ☒ NO (if no – list other wells)

will request 3 more wells once minor subdivision is approved

E. State Parcel ID# (optional):

6. Use Of Well (check applicable boxes)

See instructions to determine use(s) for which you may qualify

- ☐ A. Ordinary household use in one single-family dwelling (no outside use)
- ☒ B. Ordinary household use in 1 to 3 single-family dwellings:
  Number of dwellings: 1
  - ☒ Home garden/lawn irrigation, not to exceed one acre:
    area irrigated 5000 ☒ sq. ft. ☐ acre
  - ☒ Domestic animal watering – (non-commercial)
- ☐ C. Livestock watering (on farm/ranch/range/pasture)

7. Well Data (proposed)

Maximum pumping rate: 15 gpm | Annual amount to be withdrawn: 0.6275 acre-feet

Total depth: 600 feet | Aquifer: Arapahoe

8. Water Supplier

Is this parcel within boundaries of a water service area? ☐ YES ☒ NO

If yes, provide name of supplier:

9. Type Of Sewage System

- ☒ Septic tank / absorption leach field
- ☐ Central system: District name:
- ☐ Vault: Location sewage to be hauled to:
- ☐ Other (explain)

10. Proposed Well Driller License #(optional): 1148

11. Sign or Enter Name of Applicant(s) or Authorized Agent

The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104 (13)(a). I have read the statements herein, know the contents thereof and state that they are true to my knowledge.

Sign or enter name(s) of person(s) submitting application | Date (mm/dd/yyyy)

Gary L Hammann | 06/19/2023

If signing print name and title

Gary L. Hammann, Owner

Office Use Only

USGS map name | DWR map no. | Surface elev.

Receipt area only

AQUAMAP

WE

WR

CWCB

TOPO

MYLAR

SB5 DIV ____ WD ____ BA ____ MD ____

Gary Hammann
Ohana Acres
17825 Jones Road
Peyton, CO 80831

April 25, 2024

Attn: County Attorney (Water)
EDARP

The original decree was for a 100 year period and I was informed by Planning that it needed to be a 300 year plan. I was told that the original decree needed to be divided by three to reach the 300 year mark.

In the ground water evaluation it has a 300 year allowance for the Arapahoe aquifer on page 2 of the report. It states 2.49 AF for the four lots. I have changed the Water Supply Information Summary to reflect that number.

Gary Hammann