

WATER RESOURCES REPORT FOR THE JUDGE ORR RANCHETTES

August 31, 2017

Prepared for:

John R. Jennings
2030 Tabor Ct.
Colorado Springs, CO 80919

Prepared By:



321 W. Henrietta Ave
Suite A
Woodland Park, CO 80863
719-426-2124

WATER RESOURCES REPORT FOR JUDGE ORR RANCHETTES

A. Summary of the Proposed Subdivision:

Judge Orr Ranchettes is a proposed 40.67-acre subdivision within a portion of the southeast quarter of section 33, Township 12 south, Range 64 west of the 6th P.M. in El Paso County, Colorado. The site is located at the northwest of the intersection of Stapleton Road and Judge Orr Rd. The parcel is bounded to the north by unplatted vacant land and Stapleton Road, to the east by unplatted agriculture grazing land, to the south by Judge Orr Road, and to the west by unplatted rural residential and agriculture grazing.

The parcel is currently zoned A-35 and is proposed for rezoning to RR-5. Proposed development of the parcel includes 7 individual 5 acre residential lots, public roadway infrastructure, and overhead utility development.

Residential lots will be served by individual well and septic systems. The parcel is a portion of the 139.25 acres subject to Colorado Ground Water Commission Findings and Order within the Denver Aquifer Determination No. 679-BD.

B. Determination of Sufficient Quantity of Water:

2. Calculation of Water Demand:

Proposed development includes 7 single family residential lots.

Anticipated residential water demand is approximately 0.50 AC-FT/YR/household. There is no proposed common area landscaping with the development. Resulting in an anticipated yearly use of 3.50 AC-FT/YR for the entire subdivision.

$$(0.5 \text{ AC-FT/YEAR/HOUSEHOLD}) \times (7 \text{ RESIDENCES}) = 3.50 \text{ AC-FT/YEAR}$$

This opinion of probable residential water demand is made on the basis of experience and qualifications and represents Catamount Engineering's best judgment as an experienced and qualified professional firm, familiar with the construction industry. Catamount Engineering cannot and will not guarantee that actual water demand will not vary from this opinion of probable water demand.

1. Calculation of Water Available:

- a. The parcel is a portion of the 139.25 acres subject to Colorado Ground Water Commission Findings and Order within the Denver Aquifer Determination No. 679-BD. Catamount Engineering has obtained a copy of the Ground Water Commission Findings and has included in the appendix of this report. (*Included in Appendix*)
- b. Determination 679-BD allocates a maximum average annual amount for withdrawal of 46.3 acre-feet for the entire 139.25 acres. Proportional allocation for the 40.66 acre development would be 13.52 acre-feet.

c. DETERMINATION OF SUFFICIENT DEPENDABILITY OF WATER SUPPLY:

1. Water rights - water supply is to conform to findings of Colorado Ground Water Commission Findings and Order Determination Number 679-BD.

d. DETERMINATION OF SUFFICIENT QUALITY AND POTABILITY OF WATER:

Individual wells shall be under the ownership and responsibility of individual lot owners and shall conform to state requirements for quality and potability.

APPENDIX

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 water.state.co.us

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: JUDGE ORR RANCHETTES

2. LAND USE ACTION: FINAL PLAT

3. NAME OF EXISTING PARCEL AS RECORDED:
SUBDIVISION: UNPLATTED, FILING (UNIT), BLOCK, LOT

4. TOTAL ACREAGE: 40.21 5. NUMBER OF LOTS PROPOSED 7 PLAT MAP ENCLOSED? YES or NO

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

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

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

If yes, describe the previous action:

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

____ 1/4 of the S/E 1/4, Section 33, Township 12 N or S, Range 64 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 # <u>7</u> of units	_____	<u>.50</u>
COMMERCIAL USE # _____ of S. F	_____	_____
IRRIGATION # _____ of acres	_____	_____
STOCK WATERING # _____ of head	_____	_____
OTHER: _____	_____	_____
TOTAL	_____	<u>3.50</u>

10. WATER SUPPLY SOURCE

NEW WELLS -
 PROPOSED AQUIFERS – (CHECK ONE)
 ALLUVIAL UPPER ARAPAHOE
 UPPER DAWSON LOWER ARAPAHOE
 LOWER DAWSON LARAMIE FOX HILLS
 DENVER DAKOTA
 OTHER: _____

EXISTING DEVELOPED WELL SPRING
 WELL PERMIT NUMBERS _____
 MUNICIPAL
 ASSOCIATION
 COMPANY
 DISTRICT
 NAME _____
 LETTER OF COMMITMENT FOR SERVICE YES or NO

WATER COURT DECREE CASE NUMBERS: 679-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 CENTRAL SYSTEM
 LAGOON VAULT
 ENGINEERED SYSTEM (Attach a copy of engineering design.) OTHER:
 DISTRICT NAME: _____
 LOCATION SEWAGE HAULED TO: _____

STATE OF COLORADO

OFFICE OF THE STATE ENGINEER

Division of Water Resources
Department of Natural Resources

1313 Sherman Street, Room 818
Denver, Colorado 80203
Phone (303) 866-3581
FAX (303) 866-3589

www.water.state.co.us



February 15, 2005

Bill Owens
Governor
Russell George
Executive Director
Hal D. Simpson, P.E.
State Engineer

Robert D. and Stephen R. Gieck
C/o Greg Beedle
10875 Hat Creek Place
Black Forest, CO 80908

RE: Determination of Water Right

Dear Mr. Gieck:

Enclosed is a copy of the Colorado Ground Water Commission's Findings and Order for Determination of Water Right No. 679-BD, for the allocation of ground water in the Denver aquifer. This Findings and Order are the Commission's approval of your application for determination of rights to ground water in the above stated aquifer. This document contains important information about your water right and should be reviewed and retained for your records.

As indicated in the Order, a copy of this determination must 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 overlying land claimed in the application, or any part thereof, shall reveal this determination. An additional copy of the Findings and Order is enclosed for this purpose.

If you have any questions, please contact this office.

Sincerely,

Sarah K. Reinsel, E.I.T.
Water Resources Engineer
Designated Basins Branch

Enclosures: a/s
Cc: Upper Black Squirrel Creek GWMD

**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

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

APPLICANTS: ROBERT D. AND STEPHEN R. GIECK

AQUIFER: DENVER

DETERMINATION NO.: **679-BD**

In compliance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Robert D. and Stephen R. Gieck (hereinafter "applicants") submitted an application for determination of water right to allow the withdrawal of designated ground water from the Denver Aquifer.

FINDINGS

1. The application was received complete by the Colorado Ground Water Commission on December 7, 2004.
2. The applicants request a determination of right to designated ground water in the Denver Aquifer (hereinafter "aquifer") underlying 139.25 acres, generally described as a contiguous tract of land in the W1/2 of the E1/2 of the SE1/4, and in the NE1/4 of the NE1/4 of the SE1/4, of Section 33; and in the N1/2 of the NW1/4 of the SW1/4, and in the NW1/4 of the NE1/4 of the SW1/4, and in the NW1/4 of the NE1/4, of Section 34; all in Township 12 South, Range 64 West of the 6th Principal Meridian, in El Paso County. According to a signed statement dated September 15 and 21, 2004, the applicants own the 139.25 acres of land, as further described in said affidavit which is attached hereto as Exhibit A, and claim control of the ground water in the aquifer underlying this land area.
3. The proposed annual amount of ground water to be allocated and withdrawn from the aquifer for intended beneficial uses is the maximum allowable amount.
4. The above described land area overlying the ground water claimed by the applicants 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.
5. The applicants intend to apply the allocated ground water to the following beneficial uses: domestic, stock watering, irrigation, commercial, industrial, and replacement supply. The applicants' proposed place of use of the allocated ground water is the above-described 139.25-acre land area.
6. The quantity of water in the aquifer underlying the 139.25 acres of land claimed by the applicants is 4,734 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 underlying the land under consideration 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 underlying the land under consideration that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 200 feet.
7. At this time, there is no substantial artificial recharge that would affect the aquifer within a one hundred year period.
 8. Pursuant to Section 37-90-107(7), C.R.S., and in accordance with the Designated Basin Rules, the Commission shall allocate ground water in the aquifer based on ownership of the overlying land and an aquifer life of one hundred years. Therefore, the maximum average annual amount of ground water in the aquifer that may be allocated for withdrawal pursuant to the data in the paragraphs above for the 139.25 acres of overlying land claimed by the applicants is 47.3 acre-feet.
 9. 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.
 10. 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 139.25 acres of land claimed by the applicants 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 ground water is considered to be not-nontributary ground water. Also, the location of the land claimed by the applicants is farther than one mile from the aquifer contact with the alluvium. The Designated Basin Rules require that at least four percent (4%) of the amount of water withdrawn annually must be returned to the uppermost aquifer in the vicinity of the permitted point or points of withdrawal.
 11. In accordance with Rule 5.3.2.4 of the Designated Basin Rules, the maximum average annual amount of ground water available for allocation from the aquifer underlying the 139.25 acres of land claimed by the applicant is reduced to 46.3 acre-feet to allow for the annual withdrawal of a small capacity well which is completed in the aquifer, permit number 143638. Except for this well, review of the records in the Office of the State Engineer has disclosed that none of the water in the aquifer underlying the land claimed by the applicant has been previously allocated or permitted for withdrawal.
 12. 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.

13. In accordance with Section 37-90-107(7), C.R.S., upon Commission approval of a determination of water right, well permits for wells to withdraw the authorized amount of water from the aquifer shall be available upon application, subject to the conditions of this determination and the Designated Basin Rules and subject to approval by the Commission.
14. On December 7, 2004, in accordance with Rule 9.1 of the Designated Basin Rules, a letter was sent to the Upper Black Squirrel Creek Ground Water Management District requesting written recommendations concerning this application. No written recommendations from the district were received.
15. The Commission Staff has evaluated the application relying on the claims to control of the ground water in the aquifer made by the applicants.
16. In accordance with Sections 37-90-107(7) and 37-90-112, C.R.S., the application was published in The Gazette newspaper on November December 16 and 23, 2004.
17. No objections to the determination of water right and proposed allocation of ground water were received within the time limit set by statute.
18. In order to prevent unreasonable impairment to the existing water rights of others within the Upper Black Squirrel Creek Designated Ground Water Basin it is necessary to impose conditions on the determination of water right and proposed allocation of ground water. Under conditions as stated in the following Order, no unreasonable impairment of existing water rights will occur from approval of this determination of water right or from the issuance of well permits for wells to withdraw the authorized amount of allocated ground water from the aquifer.

ORDER

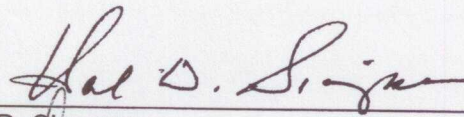
In accordance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, the Colorado Ground Water Commission orders that the application for determination of rights to designated ground water in the Denver Aquifer underlying 139.25 acres, generally described as a contiguous tract of land in the W1/2 of the E1/2 of the SE1/4, and in the NE1/4 of the NE1/4 of the SE1/4, of Section 33; and in the N1/2 of the NW1/4 of the SW1/4, and in the NW1/4 of the NE1/4 of the SW1/4, and in the NW1/4 of the NE1/4, of Section 34; all in Township 12 South, Range 64 West of the 6th Principal Meridian, is approved subject to the following conditions:

19. The allocated average annual amount of ground water to be withdrawn from the aquifer shall not exceed 46.3 acre-feet. The allowed maximum annual amount of withdrawal may exceed the allowed average annual amount of withdrawal as long as the total volume of 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.
20. To conform to actual aquifer characteristics, the Commission may adjust the allocated average annual amount of ground water to be withdrawn from the aquifer based on analysis of geophysical logs or other site-specific data if such analysis indicates that the initial estimate of the volume of water in the aquifer was incorrect.

21. At least four percent (4%) of the amount of water withdrawn annually must be returned to the uppermost aquifer in the vicinity of the permitted point or points of withdrawal.
22. The use of ground water from this allocation shall be limited to the following uses: domestic, stock watering, irrigation, commercial, industrial, and replacement supply. The applicants' proposed place of use of the allocated ground water is the above-described 139.25-acre land area.
23. The applicants, or subsequent persons controlling this water right, shall record in the public records of the county - in which the claimed overlying land is located - notice of transfer of any portion of this water right to another within sixty days after the transfer, so that a title examination of the above described 139.25 acre land area, or any part thereof, shall reveal the changes affecting this water right. Such notice shall consist of a signed and dated deed, which indicates the determination number, the aquifer, a description of the above, described land area, the annual amount of ground water (acre-feet) transferred, name of the recipient, and the date of transfer.
24. Subject to the above conditions, well permits for wells to withdraw the authorized annual amount of water from the aquifer shall be available upon application subject to approval by the Commission and the following conditions:
 - a. The wells shall be located on the above described 139.25-acre overlying land area.
 - b. The wells must be constructed to withdraw water from only the Denver Aquifer. Upon application for a well permit to construct such a well, the estimated top and base of the aquifer at the proposed well location will be determined by the Commission and indicated on the approved well permit. Plain non-perforated casing must be installed, grouted and sealed to prevent diversion of ground water from other aquifers and the movement of ground water between aquifers.
 - c. 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.
 - d. Each well shall be constructed within 200 feet of the location specified on the approved well permit and, except for wells permitted under this determination, must be more than 600 feet from any existing large-capacity well completed in the same aquifer.
 - e. The wells may withdraw the allowed average annual amount of water from the aquifer together in any combination. The total combined annual withdrawal of the wells shall not exceed the allowed average annual amount described in this Order.
 - f. 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 maintained by the well owner and submitted to the Commission or the Upper Black Squirrel Creek Ground Water Management District upon their request.

- g. The well owner shall mark the well in a conspicuous place with the permit number and the name of the aquifer. The well owner shall take necessary means and precautions to preserve these markings.
25. A copy of this Findings and Order shall be recorded by the applicants in the public records of the county – in which the claimed overlying land is located - so that a title examination of the above described 139.25-acre overlying land area, or any part thereof, shall reveal the existence of this determination.

Dated this 15th day of February, 2005.



Hal D. Simpson
Executive Director
Colorado Ground Water Commission

By: 

Suzanne M. Sellers, P.E.
Designated Basins Chief

Prepared by: SKR

EXHIBIT A

Page 1 of 3

GWS-1 (Rev, Sept 1996)

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
DIVISION OF WATER RESOURCES

RECEIVED
OCT 14 2004
WATER RESOURCES
STATE ENGINEER
COLO.

NONTRIBUTARY GROUND WATER LANDOWNERSHIP STATEMENT

I (we) Robert D. and Stephen R Gieck

(Name)

claim and say that I (we) am (are) the owner(s) of the following described property consisting of 149 139.25 acres in the County of El Paso, State of Colorado:

See attached legal description and map

and, that the ground water sought to be withdrawn from the Denver aquifer underlying the above-described land has not been conveyed or reserved to another, nor has consent been given to it's withdrawal by another.

Further, I (we) claim and say that I (we) have read the statements made herein; know the contents hereof; and that the same are true to my (our) own knowledge.

Robert Gieck 9-15-04
(Signature) (Date)

[Signature] 9/21/04
(Signature) (Date)

INSTRUCTIONS:

Please type or print neatly in black ink. This form may be reproduced by photocopy or word processing means. See additional instructions on back.

Amended by letter received DEC 07 2004

Court D. Salink El Paso Cty, CO
 27/2004 11:20 204087798
 Doc \$0.00 Page
 Rec \$20.00 1 of 4



EXHIBIT A

Page 2 of 3

DEED OF TRUST

THIS INDENTURE, Made this 5th day of May, 2004,
 between Robert D. Gieck, whose address is 4075 Miller Court, Wheat Ridge, Colorado
 80033, hereinafter referred to as grantor, and the Public Trustee of the County of El Paso,
 State of Colorado, hereinafter referred to as Public Trustee,

WITNESSETH, THAT, WHEREAS, Robert D. Gieck executed a Separation
 Agreement in Civil Action No. 03 DR 1664, Jefferson County District Court, State of
 Colorado, wherein he has numerous financial obligations to Dianne Gieck, whose address
 is 1415 South Estes Way, Lakewood, Colorado 80232, payable as provided in such
 Separation Agreement.

AND WHEREAS, the grantor is desirous of securing payment of the financial
 obligations of said Separation Agreement.

NOW THEREFORE, the grantor, in consideration of the premises and for the
 purpose aforesaid, does hereby grant, bargain, sell and convey unto the said Public
 Trustee in trust forever, the following described property, situate in the County of El
 Paso, State of Colorado, to wit:

Robert D. Gieck's undivided one-half interest in the following property:

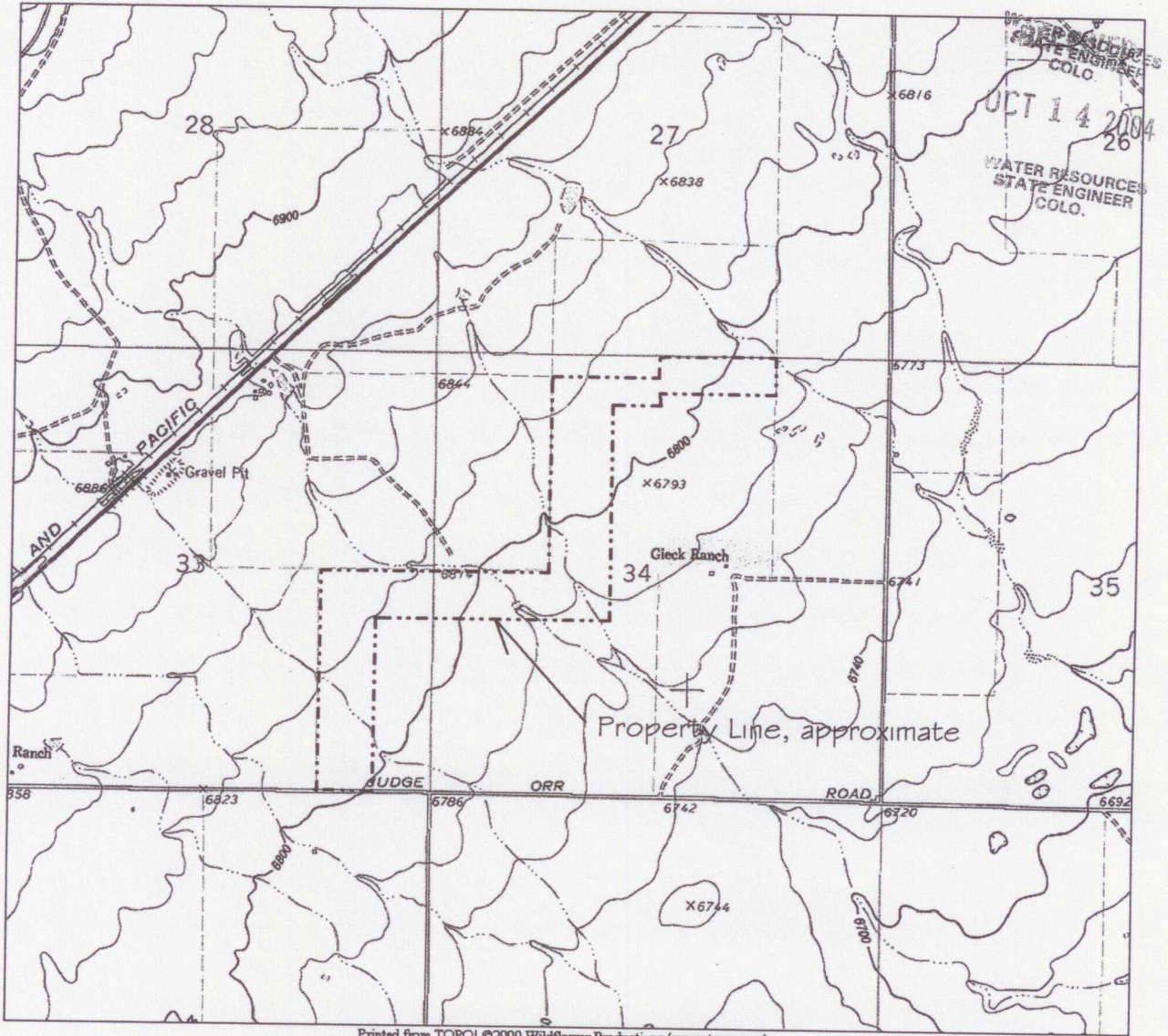
This W 1/2 of the East 1/2 of the SE 1/4, and the NE 1/4 of the NE 1/4 of the SE 1/4 of
 Section 33, the N 1/2 of the NW 1/4 of the SW 1/4, the NW 1/4 of the NE 1/4 of the SW
 1/4, the W 1/2 of the SE 1/4 of the NW 1/4, and the W 1/2 of the NE 1/4 of the NW 1/4,
 except the Northerly 8.6 acres thereof, in Section 34, all in Township 12 South, Range 64
 West of the 6th P.M., El Paso County, Colorado, including all right, title and interest in
 and to the premises described in and arising by reason of the plat and statement for
 Reservoir No. 1 and Reservoir No. 2 dated January 16, 1911, and filed in the office of the
 County Clerk and Recorder of El Paso County, Colorado, under file number 592 and
 reception number 181039, including all water rights, mineral and oil rights therein owned
 by Grantor, and the Southerly 15.70 acres of the Northerly 17.20 acres of the NE 1/4 of
 the NW 1/4 and the Northerly 12.15 acres of the NW 1/4 of the NE 1/4, all in Section 34,
 Township 12 South, Range 64 West of the 6th P.M., County of El Paso, State of
 Colorado.

TO HAVE AND TO HOLD the same, together with all and singular the
 privileges and appurtenances thereunto belonging: In trust nevertheless, that in case of
 default in the payment of said financial obligations, or in the payment of any prior
 encumbrances, principal or interest, if any, or in case default shall be made in or in case
 of violation of breach of any of the terms, conditions, covenants or agreement herein
 contained, the beneficiary hereunder or the legal holder of the indebtedness secured
 hereby may declare a violation of any of the covenants herein contained and may elect to
 advertise said property for sale, and demand such sale by filing a notice of election and
 demand for sale with the Public Trustee. Upon receipt of such notice of election and
 demand for sale, the Public Trustee shall cause a copy of the same to be recorded in the
 recorder's office of the county in which said property is situated. The Public Trustee
 shall then give public notice of the time and place of sale by advertisement to be
 published for four weeks (once each week for five successive weeks) in some newspaper
 of general circulation at that time published in the county or counties in which said
 property is located. A copy of such notice shall be mailed within ten days after the date
 of the first publication thereof to the grantor at the address given herein, to such persons
 appearing to have acquired a subsequent record interest in said property at the address
 given in the recorded instrument, and to any other persons as may be provided by law. It
 shall and may then be lawful for the Public Trustee to sell said property for the highest

EXHIBIT A

Page 3 of 3

R 64 W



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Scale 1" = 2000'

Location Map

Gleck Property

Wm Curtis Wells & Co.
consulting ground water geologists

Figure 1



Wm. CURTIS WELLS & CO. / *consulting geologists*
13842 legend way #101 / broomfield, co 80020
telephone (303) 466-3801 / fax 465-5859

August 20, 2004

Mr. Greg Beetle
10875 Hat Creek Place
Black Forest, CO 80908

Re: Ground Water Consultation, 149-Acre, Gieck Property, El Paso County, Colorado.
Job No. 5619

Dear Greg:

As you probably are aware, before you can plat any part of the 149-acre Gieck property, the Colorado Ground Water Commission must first issue Determination of Water Rights for the Denver Basin aquifers beneath the property. The property, as approximately outlined on the attached Figure-1, occupies parts of Sections 33 and 34, Township 12 South, Range 64 West. I understand that if you eventually purchase the entire property you are considering up to 30 single family homesites each to be serviced by an individual well.

There are three of the four Denver Basin aquifers beneath this land and in descending stratigraphic order they are the Denver, Arapahoe and Laramie Fox Hills formations. The base of these respective aquifers should be at depths of 960, 1,500 and 2,100 feet below the ground surface. In this region these aquifers produce ground water and typical well yields for the respective aquifers should be 10, 40 and 100 gallons per minute. Wells producing 10 gallons per minute should be adequate as a domestic supply.

Ground water availability in each aquifer is computed by multiplying the area of the property by the formation saturated sand thickness, thence by specific yield (drainable porosity). Based on published aquifer information from the Colorado Division of Water Resources, I list on the table below my estimates of ground water beneath the entire 149-acre property.



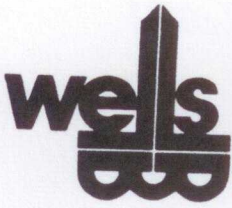
Aquifer		Sand Thickness (ft)	Ground Water Storage (af)
Denver	NNT	196	4970
Arapahoe	NT	205	5190
Laramie Fox Hills	NT	204	4560

A Determination of Water Rights is the first step in perfecting the Denver Basin aquifer ground water beneath the property. This in effect will vest the rights in the landowner and the ground water can then be reserved to the landowner even though the surface ownership of a part of the property might be sold to other individuals. Optionally, You could simply file on the 60 acres that you are closing in the near future. In the interest of saving filing fees, your property sellers may as well file on the full 149 acres at this time.

I have enclosed Determination of Water Rights applications for each of the three Denver Basin aquifers. Please review the documents and if they meet with your approval, have Robert and Stephen Gieck sign the applications, the attached Land Ownership Statements and the 600-foot Denver well spacing waiver. The Gieck's will also have to attach a good legal description of the 149 acres to the Land Ownership Statement. Ron Gate fax a legal description of the full property that does not match the description in the County Assessor's website. A mets and bounds description of the property would be ideal.

Attach the filing fee of \$1,320 payable to the Colorado Division of Water Resources and then forward the applications to the Division. The Division will bill you for the newspaper publication cost at a later date. Once the Determinations are published there is some chance a third party may enter an objection to the Determinations. If this occurs, you may need the services of a water rights attorney to assist in securing the Determinations.

To begin formulating the development water supply plan, you are aware the County will require a 300-year supply. A home water supply of 0.55 acre feet per year would be a good target for this development. This amount of water would be sufficient for the in-home needs of 0.27 acre feet, the irrigation of 4,400 square-feet



of lawn or garden plus the watering of two horses. Over 300 years each homeowner would need 165 acre feet of water. If the water supply is based on the Denver aquifer 30 homesites could be platted. The 300-year water supply for 30 homes would be 4,950 acre feet or the estimated storage of ground water in the Denver aquifer.

As shown above, the ground water in the Denver aquifer is considered at this location to be not non-tributary (NNT). Once Determinations of Water Rights are issued and prior to platting the property, a Denver aquifer replacement plan needs to be approved by the Commission. Although I have not conducted an alluvial depletion analysis as yet, septic system return flows should meet the replacement obligation. For timing purposes, the Determinations would probably be issued in about 6 months, plus an additional 6 months for the Denver aquifer replacement plan.

I trust this information satisfies your immediate needs. If you have questions, please call.

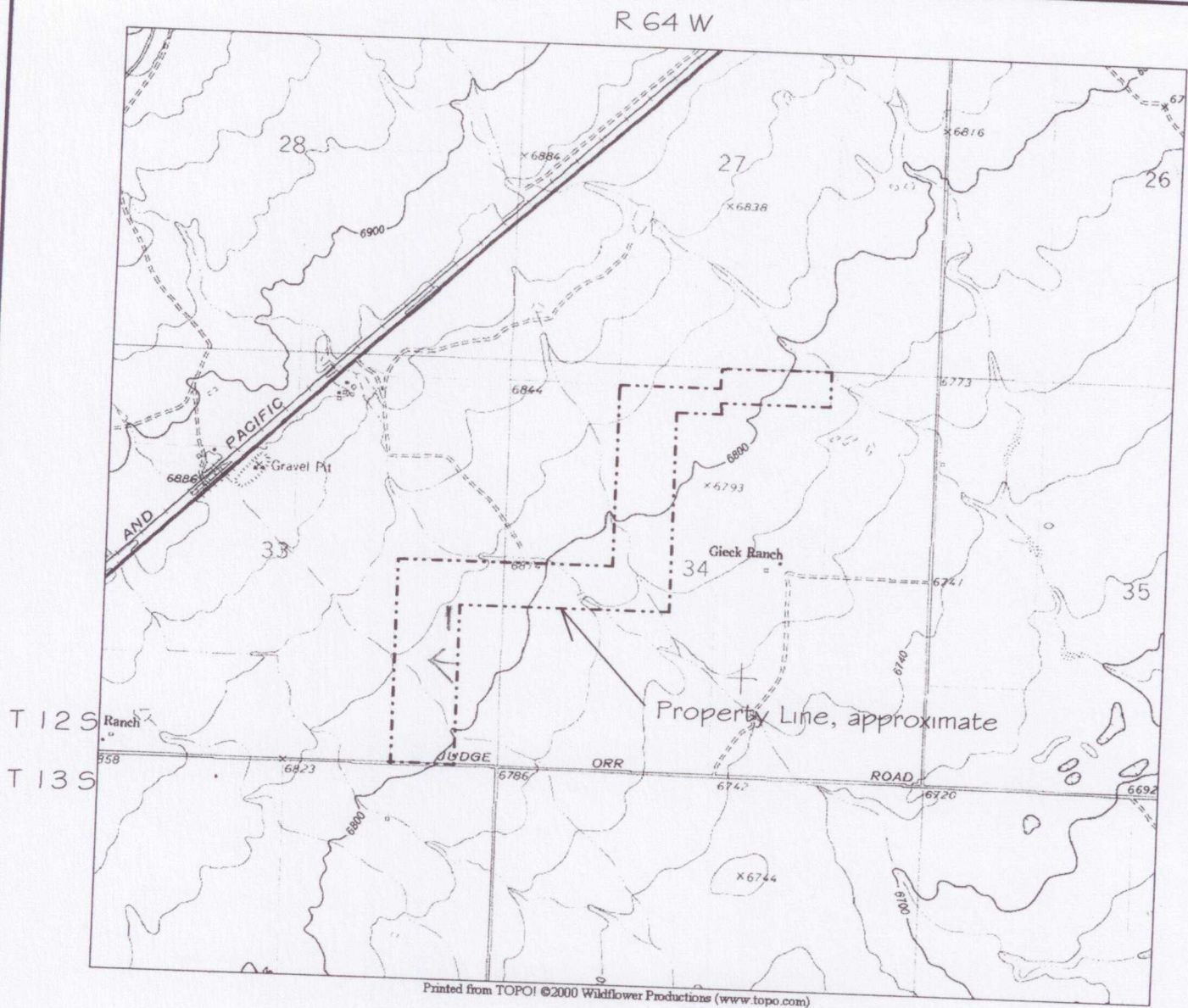
Very truly yours,

Wm. Curtis Wells & Co.

A handwritten signature in cursive script, appearing to read "Wm. Curtis Wells", is written over a horizontal line.

Wm. Curtis Wells CPG
Consulting Ground Water Geologist

cc: Ron Gate w/o encl.



Scale 1" = 2000'

Location Map

Gieck Property

Wm Curtis Wells & Co.
consulting ground water geologists

Figure 1