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Colorado Springs, CO 80903
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SILVERADO RANCH FILING NO. 1 WATER SUPPLY MEMORANDUM

August 17, 2018

This Memorandum has been prepared in support of the revised final plat submittal for Silverado Ranch Filing No. 1. The approved Silverado Ranch PUD consists of 64 rural residential lots on a 320-acre property, with a minimum lot size of 2.5 acres. The proposed Filing No. 1 consists of 10 residential lots along with three open space tracts on 106.4 acres. Filing No. 1 is in full conformance with the previously approved Silverado Ranch PUD. The proposed rural residential subdivision will be served by individual well and septic systems.

Curtis Wells & Co. ("Wells") prepared the subdivision water supply report entitled "Continued Ground Water Consultation, Silverado Ranch" dated May 4, 2007, which provides an evaluation of projected water demands and available groundwater supply for this subdivision. The Wells report identifies the subdivision water supply as being provided by individual wells drilled into the Laramie Fox Hills formation of the Denver Basin Aquifer under Determination of Water Rights No. 325-BD. The Wells report states that the available 300-year water supply is 25.6 acre feet per year (af/yr), and identifies total annual water demands of 25.5 af/yr for in-house use serving 64 single-family home sites, along with a water demand allocation for landscape irrigation, with the total estimated water use based on "a rate of 0.4 acre-feet per year per home."

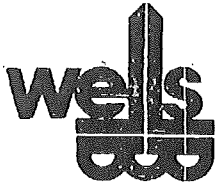
As tabulated in the attached "Water Supply Information Summary" form, the total estimated water requirement for Filing No. 1 is 4.0 acre feet per year, which has been calculated based on in-house demand of 0.3 af/yr per home along with a landscape irrigation use of 0.1 af/yr per home, resulting in a water demand of 0.4 af/yr per home (10 lots * 0.4 af/yr = 4.0 af/yr total). The estimated water requirements for Filing No. 1 are in full conformance with the estimated water demands identified in the subdivision water supply report by Curtis Wells. Consistent with the subdivision water supply report, there is no allocation of water for livestock watering or open space usage.

The State Division of Water Resources previously provided "finding of sufficiency" letters dated July 18, 2008 and September 19, 2008. Recognizing that Silverado Ranch Filing No. 1 is fully consistent with the previously approved Silverado Ranch PUD, there are no changes in water planning considerations for the project.

WATER SUPPLY INFORMATION SUMMARY

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 <i>Silverado Ranch Filing No. 1</i>			
2. LAND USE ACTION <i>Final Plat</i>			
3. NAME OF EXISTING PARCEL AS RECORDED			
SUBDIVISION	FILING	BLOCK	LOT
4. TOTAL ACREAGE <i>106.4</i>	5. NUMBER OF LOTS PROPOSED <i>10</i>	PLAT MAP ENCLOSED <input checked="" type="checkbox"/> YES	
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? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
B. Has the parcel ever been part of a division of land action since June 1, 1972? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
If yes, describe the previous action _____			
7. LOCATION OF PARCEL - Include a map delineating the project area and tie to a section corner.			
<i>N 1/2</i> OF _____ 1/4 SECTION <i>16</i> TOWNSHIP <i>15</i> <input type="checkbox"/> N <input checked="" type="checkbox"/> S RANGE <i>63</i> <input type="checkbox"/> E <input checked="" type="checkbox"/> W			
PRINCIPAL MERIDIAN: <input checked="" type="checkbox"/> 6TH <input type="checkbox"/> T.M. <input type="checkbox"/> UTE <input type="checkbox"/> COSTILLA			
8. PLAT - Location of all wells on property must be plotted and permit numbers provided. Surveyors plat <input type="checkbox"/> Yes <input type="checkbox"/> No If not, scaled hand drawn sketch <input type="checkbox"/> Yes <input type="checkbox"/> No			
9. ESTIMATED WATER REQUIREMENTS - Gallons per Day or Acre Feet per Year		10. WATER SUPPLY SOURCE	
HOUSEHOLD USE # <i>10</i> of units _____ GPD <i>3.0</i> AF	COMMERCIAL USE # _____ of S.F. _____ GPD _____ AF	<input type="checkbox"/> EXISTING WELLS <input type="checkbox"/> DEVELOPED SPRING WELL PERMIT NUMBERS _____ _____ _____	<input checked="" type="checkbox"/> NEW WELLS - PROPOSED AQUIFERS - (CHECK ONE) <input type="checkbox"/> ALLUVIAL <input type="checkbox"/> UPPER ARAPAHOE <input type="checkbox"/> UPPER DAWSON <input type="checkbox"/> LOWER ARAPAHOE <input type="checkbox"/> LOWER DAWSON <input type="checkbox"/> LARAMIE FOX HILLS <input type="checkbox"/> DENVER <input type="checkbox"/> DAKOTA <input type="checkbox"/> OTHER _____
IRRIGATION # <i>0.4</i> of acres _____ GPD <i>1.0</i> AF	STOCK WATERING # _____ of head _____ GPD _____ AF		
OTHER _____ GPD _____ AF	TOTAL _____ GPD <i>4.0</i> AF	<input type="checkbox"/> MUNICIPAL <input type="checkbox"/> ASSOCIATION <input type="checkbox"/> COMPANY <input type="checkbox"/> DISTRICT NAME _____ LETTER OF COMMITMENT FOR SERVICE <input type="checkbox"/> YES <input type="checkbox"/> NO	WATER COURT DECREE CASE NO.'S <i>325-BA</i> _____ _____
11. ENGINEER'S WATER SUPPLY REPORT <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, PLEASE FORWARD WITH THIS FORM. (This may be required before our review is completed.)			
12. TYPE OF SEWAGE DISPOSAL SYSTEM			
<input checked="" type="checkbox"/> SEPTIC TANK/LEACH FIELD		<input type="checkbox"/> CENTRAL SYSTEM - DISTRICT NAME _____	
<input type="checkbox"/> LAGOON		<input type="checkbox"/> VAULT - LOCATION SEWAGE HAULED TO _____	
<input type="checkbox"/> ENGINEERED SYSTEM (Attach a copy of engineering design)		<input type="checkbox"/> OTHER _____	



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

October 17, 2006
Revised: May 4, 2007

Mr. Stan Searle
Silverado Ranch LLC
2500 East Highway 105
Monument, CO 80132-8366

Re: Continued Ground Water Consultation, Silverado Ranch, El Paso County, Colorado.
Job No. 6119/6273

Dear Stan:

At your request I have reviewed my files concerning the 320-acre, proposed Silverado Ranch development, the plan for which is about to be submitted to the county planning department. The approximate outline of this property in Section 16, Township 15 South, Range 63 West, is shown on the attached Figure-1. As proposed, the property is to be divided for 64 single family homesites each serviced with an individual well and non-evaporative septic systems.

This property is within the Upper Black Squirrel Creek Ground Water Management District and the ground water beneath the property is administered by the Colorado Ground Water Commission. The only Denver Basin aquifer beneath the property is the not non-tributary Laramie Fox Hills formation. The sandstones in this aquifer should be at a depth of 200 through 450 feet below the ground surface. Domestic wells drilled into this formation may yield about 10 gallons per minute which should be adequate for single family homes.

On December 11, 2002, the Commission issued Determination of Water Rights No. 325-BD for the Laramie Fox Hills formation beneath this property. The Commission found that the Laramie Fox Hills aquifer should contain about 7,680 acre feet of water. As you know, the County's 300-year water supply policy controls how this ground water is to be used if you develop the property for homes. Over 300 years, the ground water can be used at a rate of 25.6 acre feet per year. If the water is used at a rate of 0.4 acre feet



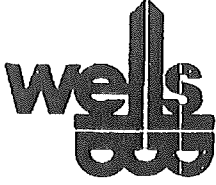
per year per home, up to 64 homes can be platted. This amount of water would allow an in-house use of 0.3 acre feet per year and the remaining water could be used to irrigate 1,700 square-feet of lawn or garden as shown on the table below.

	Amount/units	Use Rate (af./yr.)	Total (af./yr.)
In-house	64	0.30	19.2
Landscape Irrigation	2.53	2.5 per acre	6.3
Total			25.5

Although the Laramie Fox Hills ground water is considered not non-tributary, no formal Commission issued replacement plan is needed. Now that the Commission has issued the Laramie Fox Hills Determination of Water Rights well permits for the proposed wells can be obtained. The property is more than one mile from the aquifer/stream outcrop, thus the replacement obligation is just four percent of the ground water pumped. Individual, non-evaporative septic systems will return far more water to the shallow sandy soils beneath the land than is required.

The quality of the water produced from Laramie Fox Hills wells is normally adequate for drinking purposes. The chemical analysis of this water from an on-site stock well is listed on the attached Table I. As shown, the mineral constituents in the water are all below drinking water standards. Iron is commonly present in Laramie Fox Hills ground water at concentrations slightly higher than the drinking standard, thus prospective home buyers should be advised iron treatment may be necessary.

In your development planning there is three things that you should keep in mind. First, the development homesites should be platted so that individual wells can be at least 400 feet apart to avoid mutual well to well interference. Secondly, one of the initial wells needs to be geophysically logged and a copy of the log will have to be forwarded to Colorado Division of Water Resources. Lastly, as each well discharge needs to be metered, the development HOA should be responsible for recording the annual meter readings as these may have to be transmitted to the Division.



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 black ink, appearing to read "Wm. Curtis Wells", is written over a horizontal line.

Wm. Curtis Wells, CPG
Consulting Ground Water Geologist

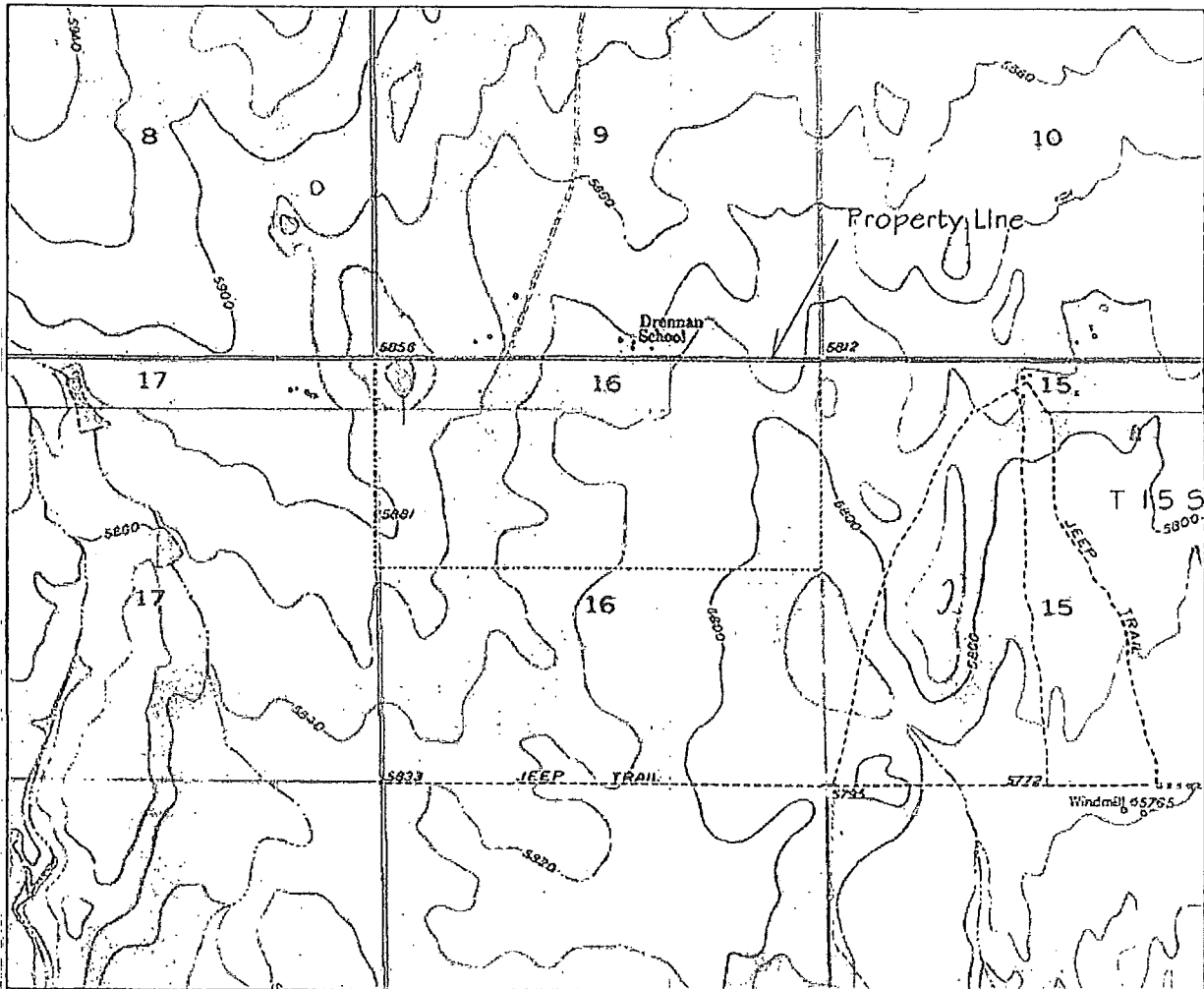
cc: Dean Mabe (e-mail)

Table I
Ground Water Quality
Silverado Ranch Laramie Fox Hills Stock Well

Mineral/Compound	Concentration (mg/l)	
		Upper Limits Drinking Water Standards
Sodium	170	
Bicarbonate	150	
Sulfate	25	250
Chloride	15	250
Nitrate-N	3.1	10
Fluoride	0.33	2.4
Hardness	150	
Arsenic	BDL	0.05
Barium	0.047	1.0
Cadmium	BDL	0.01
Chromium	0.0043	0.05
Lead	0.016	0.05
Mercury	BDL	0.002
Selenium	0.00635	0.01
Silver	0.063	0.05
Pesticides		
Endrin	BDL	0.0002
Lindane	BDL	0.004
Methoxychlor	BDL	0.1
Toxaphene	BDL	0.005
Herbicides		
2,4-D	BDL	0.01
2,4-5TP(silvex)	BDL	0.01
Gross Alpha	5.77	15
Gross Beta	5.3	50

BDL - Below Detection Limits

R 63 W

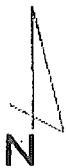


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Location Map
Silverado Ranch

Wm Curtis Wells & Co.
consulting ground water geologists

Figure 1



Scale: 1" = 2000'