



STAGECOACH MOUNTAIN RANCH: STETSON RANCH LAND PRESERVATION SUBDIVISION (LPS)

PRELIMINARY WATER RESOURCES & ONSITE WASTEWATER
TREATMENT SYSTEMS REPORT

DECEMBER 4, 2024

Prepared by:

Kimley»»Horn

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SUMMARY OF THE PROPOSED SUBDIVISION

DEVELOPMENT LOCATION

This Preliminary Water Resources & Onsite Wastewater Treatment Systems (“OWTS”) Report has been prepared for Stagecoach Mountain Ranch (“Development/SMR”) located in Routt County, Colorado. This document is intended to accompany the *Stagecoach Mountain Ranch Water & Sanitary Sewer Master Plan* (“SMR MP”). Additional information, including vicinity maps, can be found in the SMR MP. SMR will consist of approximately 5,059 acres located within Routt County, Colorado in the Stagecoach area. SMR will be created on two (2) separate properties in the Stagecoach area. The Ski Mountain property, generally referred to as the Stagecoach Ski Area, includes approximately 4,168 acres on the northwest end of Green Ridge. The Stetson Ranch property includes 891 acres of ranching land fronting County Road 14 and situated along 2.1 miles of the Yampa River. More specifically, the Development and proposed utility infrastructure will be located within the following:

- Sections 6, 7, 8, 17, 18, & 19 of Township 3 North, Range 84 West of the 6th P.M.
- Sections 1, 2, 11, 12, 13, 14, 23, 24, 25, & 26 of Township 3 North, Range 85 West of the 6th P.M.
- Sections 31 & 32 of Township 4 North, Range 84 West of the 6th P.M.
- Section 36 of Township 4 North, Range 85 West of the 6th P.M.

DESCRIPTION OF PROPERTY

SMR is a master planned residential development consisting of 613 residential units to be constructed on a portion of approximately 5,059 acres of privately owned property that makes up the Development sites in Stagecoach. The development consists of two areas: Ski Mountain and Stetson Ranch. The Ski Mountain area is the focus of the SMR MP and will be serviced by Morrison Creek Metropolitan Water and Sanitation District (“MCMWSD”) for all potable water, irrigation, and sewer services. Additional information on SMR and specifically the planned expansion of the water and sewer system can be found in the SMR MP.

The Stetson property consisting of approximately 891 acres, including 652 acres associated with an existing conservation easement held by the Colorado Cattlemen’s Agricultural Land Trust, are zoned AF.

Development of the Stetson Ranch property will be limited to the approximate 239 acres of land located north of County Road 14. Development is anticipated to consist of seven (7) large single-family residential lots to be included as part of the Development’s Land Preservation Subdivision (LPS). In addition, non-residential areas consisting of a clubhouse, cottage, equestrian facility, and maintenance building are proposed to be developed. The Stetson Ranch property is anticipated to be serviced through the establishment of individual wells and onsite septic systems for the proposed lots in the development area.

The information presented herein will focus on the water supply needs and soil evaluations for the Stetson Ranch development area. This document is intended to accompany the SMR MP and follows the same methodology for land use classification, Equivalent Residential Units (“EQRs”), and anticipated water and sewer demands.

STETSON WATER SYSTEM

The Stetson Ranch development area has an existing well (Permit No. 17192) located on the portion of property south of County Road 14. The existing well is permitted for a yield of 10 gpm for domestic use. It’s anticipated that the existing well will remain and new individual wells will be installed for the seven (7) proposed residential lots and non-residential area(s).

Demands for the development have been calculated and included within the SMR MP in respect to the current demand estimations within MCMWSD's water and sewer systems. **Tables 1-2**, shown below, highlight the calculated estimated water use for the Stetson Ranch development area.

Table 1: Residential & Non-Residential Potable Water Demands (Stetson Ranch)

Land Use Type	EQR	Average Day Demand		Max Day Demand		Peak Hour Demand	
		(GPD)	(AFY)	(GPD)	(AFY)	(GPD)	(AFY)
Residential	49.00	4,900.00	5.49	6,860.00	7.68	17,150.00	19.21
Non-Residential	19.48	3,895.00	4.36	5,453.00	6.11	13,632.50	15.27
Total ¹	68.48	8,795.00	9.85	12,313.00	13.79	30,782.50	34.48

(1) Potable water demands do not include projected irrigation demands.

Table 2: Irrigation Demand (Stetson Ranch)

Irrigation Type	Temporary Irrigation Demand		Permanent Irrigation Demand	
	(Acres)	(AFY)	(Acres)	(AFY)
Residential	0.88	0.71	0.48	0.39
Non-Residential	0.23	0.18	0.11	0.09
Total	1.11	0.89	0.59	0.48

It is understood that Routt County requires proof of water availability, quality, and dependability as part of the preliminary plan approval process. Availability and dependability of water will be confirmed against the available water rights and the 100-year yield of the aquifer in use as determined by the Colorado Department of Public Health and Environment (“CDPHE”) Division of Drinking Water (“DDW”). DDW will also determine the need for a replacement plan to be submitted and reviewed by CDPHE. The Development Owner is currently in negotiations with the existing landowner to purchase the property and associated water rights.

Quality of the water supply is currently being investigated. Samples from the existing well on site will be utilized to prove sufficient water quality in the area. Samples will be tested through the Routt County Department of Environmental Health. As the proposed wells are anticipated to pull from the same aquifer within a 1-mile radius of the existing well, it is reasonable to assume that water quality will be consistent for all proposed wells.

The Oak Creek Fire Protection District (“OCFPD”) will provide fire protection services for the Development. The proposed and existing wells for the Development are not anticipated to provide fire protection capacity.

STETSON SEWER SYSTEM

The Stetson Ranch development area will utilize onsite wastewater treatment systems (“OWTS”) within each lot to treat the anticipated sewer flows. Anticipated sewer flows for this development area were calculated utilizing ERQs as described in the SMR MP associated with this preliminary plan submittal.

Table 3, shown below, highlights the calculated flows for the Stetson Ranch area.

Table 3: Residential & Non-Residential Sewer Flows (Stetson Ranch)

Land Use Type	EQR	Average Day Flow		Max Day Flow	
		(GPD)	(AFY)	(GPD)	(AFY)
Residential	49.00	4,410.00	4.94	6,174.00	6.92
Non-Residential	19.48	3,505.50	3.93	4,907.70	5.50
Total	68.48	7,915.50	8.87	11,081.70	12.41

It is anticipated that the treated water released from each proposed OWTS should meet any replacement volume as required by Colorado Division of Drinking Water. At the time of this submittal, geotechnical investigation including percolation testing is underway. The results of this investigation will inform the OWTS layout and design for each proposed lot.

CONCLUSION

The Stetson Ranch development area within SMR will be serviced by on site potable water wells and onsite wastewater treatment systems. Residential and non-residential uses are anticipated and have been included in water demand and sewer flows described in this report. Future individual lot owners will be responsible for any applications, permitting, and replacement plans as required by the county and CDPHE.

It is anticipated this preliminary report will be updated, amended, and resubmitted as part of the Routt County Preliminary Plan Application review process and will include additional information and final design data upon receipt of water quality testing and geotechnical investigation.

APPENDIX A: EXISTING WELL PERMIT (NO. 17192)

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

RECEIVED
 OCT 16 1963
 GROUND WATER SECT.
 COLORADO
 STATE ENGINEER

Index No. 33
 IDWD 6-58
 Use Stock
 Registered 10-16-63

LOG AND HISTORY OF WELL
 PERMIT NO. 17192

Driller Row Bierig Lic. No. 338

WELL LOCATION 54

Owner Frank Steaton

County Routt

Street _____ City Dap Creek

SW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Sect. 2

Tenant _____

Twp 3N Rge. 85W 6 th PM

Use of Water Stock

On or By SW-SW-102-TWP 3N Rge No 85 Acres _____
 (description of site or land)

Date Started Aug 28, 1963

Date Completed Aug 29, 1963

Yield 50 GPM or _____ CFS

WELL DESCRIPTION:

Depth to Water 60 ft. Total Depth 75 ft.
 (measured from ground surface)

Hole Diameter { from 0 ft. to 75 ft., 6 3/4 in.
 from _____ ft. to _____ ft., _____ in.
 from _____ ft. to _____ ft., _____ in.

TEST DATA:

How Tested _____ Pump or Bailer Bailed

Date Tested Aug 29, 1963 Length 14 hrs.

Rate 50 GPM Drawn Down 2 ft.

PUMP DATA:

Pump Type Submers Outlet Size 1 1/4 in.

Driven by elect HP 3/4

CASING RECORD:

Plain Casing

Size 5, Kind Galv from 0 ft. to 57 ft.

Size _____, Kind _____ from _____ ft. to _____ ft.

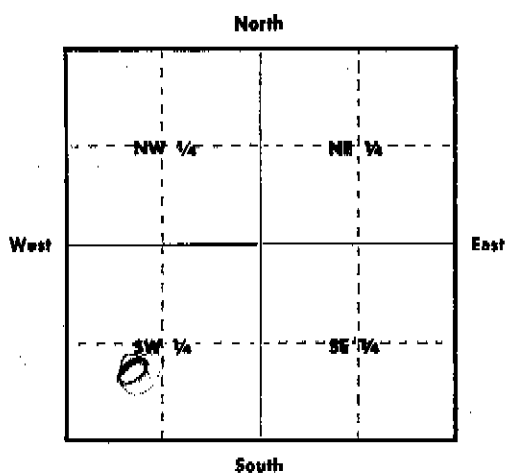
Size _____, Kind _____ from _____ ft. to _____ ft.

Perforated Casing

Size 5, Kind Galv from 57 ft. to 75 ft.

Size _____, Kind _____ from _____ ft. to _____ ft.

Size _____, Kind _____ from _____ ft. to _____ ft.



ABOVE DIAGRAM REPRESENTS ONE FULL SECTION. LOCATE WELL ACCURATELY IN SMALL SQUARE REPRESENTING 40 ACRES.

If the above is not applicable fill in:

No. _____ Street _____

 City or Town _____
 or
 Lot _____, Block _____

 Subdivision _____
 (include filing or number)

TO BE MADE OUT IN QUADRUPLICATE:
 Original Blue and Duplicate Green Copy must be filed with the State Engineer within 30 days after well is completed. White copy is for the Owner and Yellow copy for the Driller.

WELL LOG

Ground Elevation _____ (if known)

How Drilled Rotary Rig

FROM FEET	TO FEET	TYPE OF MATERIAL	REMARKS (such as Cementing, Packing, Shut off, etc.)	Indicate Water Bearing Formation	Indicate Perforated Casing Location
0	14	top soil	Cored and sand		160 200
14	60	Shale	Gravel bedded		175
60	75	sand + gravel	No log		

(If more space is required use additional sheet)

WELL DRILLER'S STATEMENT

This well was drilled under my supervision and the above information is true and correct to the best of my knowledge and belief.

Signed Don Ricoy
By Don Ricoy

Dated Oct 14 1963

Form C Rev.
9-62/10M

STATE OF COLORADO

APPLICATION FOR: A PERMIT TO USE GROUND WATER
 A PERMIT TO CONSTRUCT A WELL

RECEIVED

AUG 28 1963

Applicant Frank Stetson

P.O. Address Oak Creek Colo

Quantity applied for 10 gpm or
AF Storage

Used for domestic Purposes

on/at SW 1/4 sec 2 TWP 3 R9E 85
(legal description of land site)

Total acreage irrigated and other rts.

ESTIMATED DATA OF WELL

Hole size: 6 3/4 in. to 100 ft.
14 in. to ft.

Casing Plain 5 in. from 0 to 80 ft.
in. from to ft.

Open or Perf. 5 in. from 80 to 180 ft.
in. from to ft.

PUMP DATA: Type submers HP 3/4 Size 1 1/4 Outlet

Use initiation date aug 30 19 63.
(Use Supplemental pages for additional data)

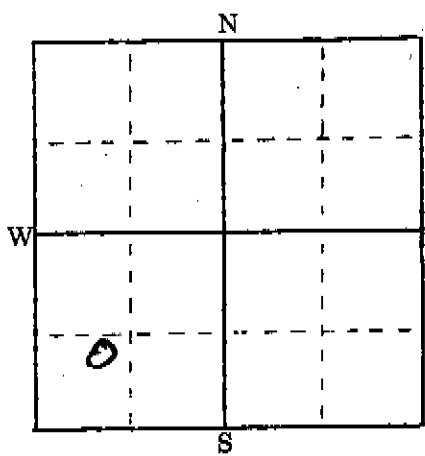
County Route LOCATION OF WELL

SW 1/4 of SW 1/4 of Sect. 2, Twp. 3 N,

Rge. 85 W 6 P.M. OR

Street Address or Lot & Block No.

Town or Subdivision



Locate well in 40 acre (small) square as near as possible. Large square is one section.

\$25.00 fee required for uses other than Domestic or Livestock.

Applicant Frank Stetson

Agent or Driller Don King

Address Craig Co

Driller to furnish Log and History (Form E) within 30 days after completion of well.

THIS APPLICATION APPROVED
PERMIT NO. 17192
ISSUED: AUG 28 1963
DATE 19 63

NOTE - SATISFACTORY COMPLETION REQUIRED FOR APPROVAL OF APP

X