

October 1, 2018

Elizabeth Nijkamp
Stormwater Division
El Paso County Public Works
3275 Akers Drive
Colorado Springs, CO, 80922

RE: Drainage Letter – Clear Springs Ranch Internal Road Expansion - TSN 570-000-0132

Dear Elizabeth Nijkamp,

This letter describes the current drainage in the southern portion of the Clear Springs Ranch property and the expected impact on drainage due to this road expansion project. The drainage area is shown on a modified version of Figure-3 of the SWMP attached to this letter.

Current Drainage

The road travels through a drainage basin of approximately 490 acres in the southern portion of Clear Springs Ranch (CSR). The area is covered with native low grass and shrubs and there are no impervious areas. Water drains east to the property boundary following natural channels. The area is dry, with drainage through these channels only after precipitation events. It is the only area of CSR that does not drain to the Nixon Reservoir, located just north of the road which will be regraded. Upon exiting the property these channels almost immediately intersect and carry the water south past Pikes Peak Raceway, eventually reaching Fountain Creek about two miles south east.

Impact on Drainage

The project construction is designed to minimally impact stormwater and drainage. The area of the new grade constitutes less than 1.5% of the total area of the drainage basin in which it is located. The road be constructed to El Paso County standards described in Section 2.3 of the county's Engineering Criteria Manual. The road will be left unpaved so that no impervious surfaces will be created. The Stormwater Management Plan followed the Four-Step Process described in the County's Engineering Criteria Manual – Appendix I to determine the best methods for reducing the impact on drainage.

1. Employ Runoff Reduction Practices

- The entire length of the roadway will be grubbed and graded within a week, giving very little opportunity for runoff to form and move through the site.
- No impervious surfaces will be created as the road will be left unpaved.
- Natural vegetation will act as a buffer. The disturbance area will be limited to the road grade and a few vehicle turn around points. Natural vegetation next to the new road will not be disturbed or will be replaced if it is.



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2. Stabilize Drainageways

- Existing vegetation, mostly prairie grasses, along the side of the grade will not be disturbed allowing for stormwater to disperse through natural swales.
- The slope of drainageways along the side of the road will never exceed 10%.
- In any channels where slopes exceed 5% check dams will be installed according to USDCM Vol. 3 – EC-12.

3. Provide Water Quality Capture Volume (WQCV)

- Total run off volume increase due to road installation is expected to be insignificant as no impervious areas will be created and therefore no additional capture volume will be installed at this time. Should future development take place then new WQCV calculations will have to be made.

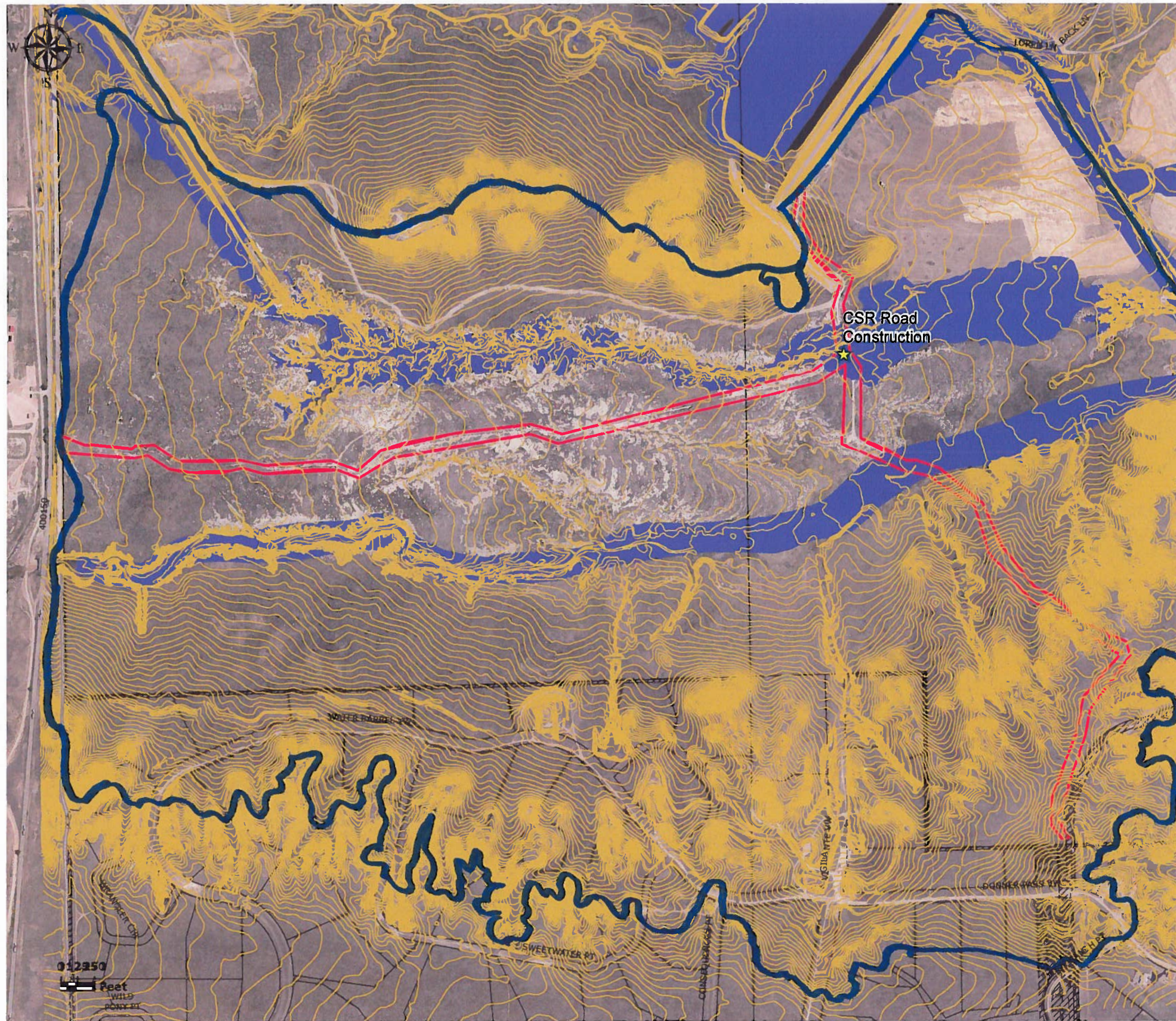
4. Use of BMP's

- A full description of structural and non-structural BMPs can be found in the Stormwater Management Plan (SWMP) submitted with this application.

If you need any additional information or have any questions regarding this submittal, please contact me at 719-668-8426.

Sincerely,

Richard Sebastian-Coleman
Environmental Project Engineer
Colorado Springs Utilities



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Environmental Services Department
121 South Tejon Street, Fourth Floor
Colorado Springs, Colorado 80903

Legend:

- Streets
- Colorado Springs SW Inlets
- Water Way
- Construction Project Location
- Existing and Proposed Contours (2ft Intervals)
- Boundary of Construction Project
- Property Boundaries
- Utility Easements
- Impervious Areas at Project Site
- 10 Year FEMA Flood Zone
- 100 Year FEMA Flood Zone
- 500 Year FEMA Flood Zone
- Approximate Drainage Basin Boundary

SWMP / ESQCP PROPOSED SITE CONDITIONS CLEAR SPRINGS RANCH ROAD CONSTRUCTION

Project No: WO# 3344840

Prepared By: RICHARD SEBASTIAN-COLEMAN

Date: AUGUST 2018

Figure
Number
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