

Sensitive Area Determination Checklist

WPX Energy Rocky Mountain, LLC (WPX)		
Person(s) Conducting Field Inspection	Finn Whiting	06/12/2014
Site Information		
Location:	GV 26-28	Time: 12:45
Type of Facility:	Existing production facility w/ proposed expansion	
Environmental Conditions	Overcast, warm, dry soil conditions.	
Temperature (°F)	74	

Has the proposed, new or existing location been designated as a sensitive area?

☐ Yes ☒ No

SURFACE WATER

- Are there any surface water features or SWSAs adjacent to or within ¼ mile of the proposed/new or existing facility?

☒ Yes ☐ No

If yes, list type of surface water feature(s), i.e. rivers, creeks, streams, seeps, springs, wetlands: One (1) unnamed USGS identified intermittent drainage, remnant section of the low cost ditch, and Parachute Creek; a USGS identified perennial stream.

If yes, describe location relative to facility: One (1) USGS identified intermittent drainage is located 280' to the north, the remnant section of the ow cost ditch is located 255 feet to the southwest, and Parachute Creek is located 1,220' southwest of the pad existing facility.

- Could a potential release from the facility reach surface water features?

☐ Yes ☒ No

If yes, describe the pathway a release from the facility would likely follow to determine if the potential to impact surface water is high or low.

- Is the potential to impact surface water from a facility release high or low?

☐ High ☒ Low

GROUNDWATER

1. Will the proposed/new or existing facility have any pits which will contain hydrocarbons and chlorides or other E&P wastes?
☒ Yes ☐ No
 If yes, List the pit type(s): Cuttings trench

2. Is the site of the proposed facility underlain by an unconfined aquifer or recharge zone?
☒ Yes ☒ No

3. Is the hydraulic conductivity of the underlying soil or geologic material $\leq 1.0 \times 10^{-7}$ cm/sec?
☐ Yes ☒ No

4. Is the proposed facility located within 1/8 mile of a domestic water well or 1/4 mile of a public water supply well which would use the same aquifer?
☐ Yes ☒ No

5. Is the proposed facility located within a 100 year floodplain?
☐ Yes (*Sensitive Area*) ☒ No (*If no, proceed to question #6.*)

6. Is the depth to groundwater known?
☐ Yes (*If yes, follow instructions provided in 6(a) of this section.*)
☒ No (*If no, follow instructions provided in 6(b) of this section.*)
 - (a) If yes, could a potential release from the proposed facility reach groundwater?
☐ Yes ☐ No
 If yes, explain:

 - (b) If no:
 - (i) Evaluate surrounding soils, topography, and vegetation which may suggest the presence of shallow groundwater.
 - (ii) Gather information from surrounding well data in order to determine a depth to groundwater, i.e. State Engineers Office.

7. Is the potential to impact ground water from the facility in the event of a release high or low?
☐ High ☒ Low

Additional Comments:

As stated in the surface water section of this sensitive area determination, there is one (1) unnamed USGS identified intermittent drainage, a remnant segment of the Low Cost Ditch, and Parachute Creek; a USGS identified perennial stream located within ¼ mile of the existing facility. The facility as it is currently constructed and proposed to be expanded, limits the direction of a potential release to the southwest side. If a potential release were to migrate off the facility on the southwestern side flow would be towards and onto the Williams Gas Plant where it would be contained. The Williams Gas Plant acts as a manmade barrier between the facility and Parachute Creek eliminating the potential for impacts if a release were to migrate off facility. The unnamed USGS identified intermittent drainage 280' north is up gradient and has been diverted to the northwest away from the facility thus eliminating the possibility for impacts.

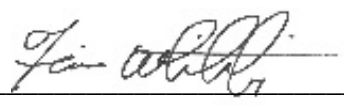
There are currently Best Management Practices (BMPs) in the form of an earthen perimeter on the fill slope sides and a raised pad entrance. These same BMPs should be implemented during facility expansion. All installed BMPs should be monitored and maintained to ensure containment in the event of a potential release.

The State Engineers office and USGS records were reviewed and revealed no water wells are located within a ¼ mile of the proposed facility. The nearest water well (permit number 26068) is located 1,775' southwest of the facility on the opposite side of Parachute Creek. The well is adjacent to the creek approximately 25' lower in elevation and is noted to have a depth to groundwater of approximately 50 feet. In addition, geotechnical soil borings drilled prior to the Phase II expansion of the gas plant were advanced to 50 feet and no water was encountered. Therefore it can be assumed that the depth to groundwater in the immediate vicinity of the proposed facility is greater than 50 feet. The topography and vegetation (dominated by sage and bunch grasses) further suggest the absence of shallow groundwater.

Based on the information gathered during the site visit and desktop review, the risk for impacts to surface water features or actual flowing surface water has been mitigated by manmade obstruction and modifications to the land surface. By COGCC decision the close proximity to the unnamed USGS identified intermittent drainage would classify the facility as being in a sensitive area. However, based on the information noted above, there is no potential for a release to impact this drainage feature. With the low potential for impacts to groundwater and surface water, the facility can be designated as being in a non-sensitive area.

Inspector Signature(s):  Date: 6/13/2014

Mark E. Mumby, *Project Manager/RPG*
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 Date: 06/12/2014

Finn Whiting, *Geologist*
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