Sensitive Area Determination Checklist

WPX Energy Rocky Mountain, LLC (WPX)			
Person(s) Conducting Field Inspection	None Conducted		
Site Information			
Location:	SR 43-12	Time:	
Type of Facility:	Existing well pad/w proposed expansion		
Environmental Conditions	Winter Conditions		
Temperature (°F)	N/A		

Has the proposed, new or existing location been designated as a sensitive area?
☒ Yes ☐ No

SURFACE WATER

1. 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 unnamed USGS identified intermittent drainage and the Beaver Creek SWSA (317b area)

   If yes, describe location relative to facility: The unnamed USGS identified intermittent drainage is located 946 feet to the northwest of the existing facility. The facility itself is located within the external buffer zone of the Beaver Creek SWSA

2. 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. If a potential release were to migrate off the facility, flow would be to the northwest where it would enter a low lying depression which connects to the unnamed intermittent drainage.

3. Is the potential to impact surface water from a facility release high or low?
   ☒ Moderate ☐ Low

WPXENERGY

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):

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 $\leq 1.0x10^{-7}$ 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:

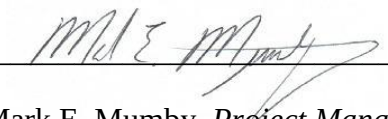
As stated in the surface water portion of this sensitive area determination, there is one unnamed USGS identified intermittent drainage located within a ¼ mile of the proposed facility; and the facility is located in the external buffer zone of the Beaver Creek SWSA (317b area). The facility, as it is currently constructed and proposed to be expanded, limits the direction of a potential release to the northwestern side. If a potential release were to migrate off facility on this side, flow would be to the northwest into a heavily vegetated depression adjacent to the northwestern side and towards the unnamed USGS identified intermittent drainage located to the northwest.

During facility expansion, it is highly recommended that Best Management Practices (BMP's be installed in the form of an earthen perimeter berm on all fill slope sides of the pad with a raised pad entrance. If feasible, a diversion ditch, if feasible, should be constructed along the toe of the fill slope sides as well. All BMPs should be monitored and maintained to ensure containment of a potential release on site.

The State Engineers Office and USGS records were reviewed and no records were revealed which would provide additional information on the depth to groundwater. The closest permitted water well (permit #165951) is located 5,993 feet (1.1 miles) to the southeast. The depth to groundwater is noted to be 10 feet. However, according to the CDWR, the well was completed with a backhoe and the source of water is actually a spring. The vegetation in the immediate vicinity of the facility, based on previous site visits to the area, is dominated by sage, juniper, oak brush and bunch grasses. Review of the aerial photography does not indicate the presence of any hydrophilic species which would suggest the presence of shallow groundwater. Therefore, based on the vegetative cover and topography, it could be assumed that the depth to groundwater is at least 40 feet, if not greater, in the immediate vicinity of the existing facility.

Based on the information collected during this desktop review, the potential to impact groundwater has been deemed as being low. The greatest potential for impacts is to the unnamed USGS identified intermittent drainage located 946 feet to the northwest. As noted above, if a potential release were to migrate off the facility flow would be to the northwest into a heavily vegetated depression adjacent to the northwestern side. If a potential release was relatively small, it is likely that it would infiltrate into the underlying soils within the depression. If a release were large enough to reach the unnamed USGS identified intermittent drainage located 946 feet to the northwest, during periods of flow, Beaver Creek could be potentially impacted as this drainage feature is tributary to Beaver Creek. It should be noted that with the moderate potential for impacts to the above noted drainage during periods of flow, an Emergency Response Control Valve has been installed just after the access road turn off to redirect flow and prevent it from reaching Beaver Creek in the event this drainage feature was impacted.

Although the potential for impacts to the intermittent drainage is low, if the release was small and during periods of no flow, there is a moderate potential for impacts during periods of flow (i.e. spring runoff) if a very large release were to occur. Therefore, with the moderate potential for impacts to surface water features during periods of flow and the fact the facility is located within the external buffer zone of the Beaver Creek SWSA (rule317b) the facility should be classified as being in a sensitive area.

Inspector Signature(s):  Date: 11/29/2014

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