Sensitive Area Determination Checklist

WPX Energy Rocky Mountain, LLC (WPX)			
Person(s) Conducting Field Inspection	Finn Whiting		
	Geologist / Environmental Inspector		
Site Information			
Location:	RU 22-7		Time: 1:40
Type of Facility:	Existing Facility w/ Proposed Expansion		
Environmental Conditions	Raining, wet ground conditions.		
Temperature (°F)	56		

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 (1) unnamed non-USGS identified intermittent drainage.

   If yes, describe location relative to facility: One (1) non-USGS identified intermittent drainage is located 1,091feet to the north of the existing facility.

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.

3. Is the potential to impact surface water from a facility release high or low?
   ☐ High ☒ 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): 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 $\leq 1.0x10^{-7}$ 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

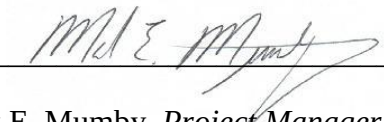
Additional Comments:

As stated in the surface water portion of this sensitive area determination, there is one (1) unnamed non-USGS identified intermittent drainage located within a ¼ mile of the proposed facility expansion. The facility, as it is currently constructed and proposed to be expanded, limits the direction of a potential release to the western side. If a potential release were to migrate off the western side, flow would be to the west northwest where it could intersect the access road bar ditch which flows to the northwest and is diverted by a road side turn out onto the gently sloping heavily vegetated hillside northwest of the existing facility.

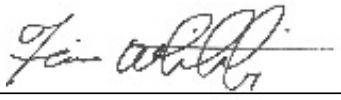
During facility expansion, Best Management Practices (BMP's) should be installed in the form of an earthen perimeter berm along the graded edge of the fill slope sides with a raised pad entrance. If feasible, a diversion ditch should be constructed along the toe of the fill slope sides as well. All BMPs should be monitored and maintained to ensure site 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 to the depth of groundwater. The vegetation in the immediate vicinity of the facility is dominated by sage, juniper, oak brush and bunch grasses typical of the mesic uplands and does not suggest the presence of shallow groundwater. Furthermore, there were no springs or seeps identified in the immediate vicinity of the existing facility. 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 the site visit and desktop review, the potential to impact groundwater has been deemed as being low. A stated above; if a potential release were to migrate off the facility flow would be to the west northwest following the natural contours of the area. Any released fluids would either infiltrate into the underlying soils or intersect the access road bar ditch. If a potential release were to intersect the access road bar ditch; it would flow to the northwest approximately 260 feet where it diverted by a road side turnout. Once diverted, any released fluids would tend to migrate out onto the heavily vegetated hillside and infiltrate into the underlying soils. The non-USGS identified drainage would not be impacted by a potential release as any flow off the facility would be parallel to it. With the potential to impact surface water features, actual flowing surface water, and groundwater being deemed as low, the facility can be designated as being in a non-sensitive area.

Inspector Signature(s):  Date: 8//2014

Mark E. Mumby, *Project Manager/RPG*
HRL Compliance Solutions, Inc.

Inspector Signature(s):  Date: 08/26/2014

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