Sensitive Area Determination Checklist

TEP Rocky Mountain, LLC		
Person(s) Conducting Field Inspection	None conducted	
Site Information		
Location:	RWF 43-9 Drill Pad	Time: N/A
Type of Facility:	Proposed Well Pad	
Environmental Conditions		
Temperature (°F)	N/A	

A sensitive area is an area vulnerable to potential significant adverse groundwater impacts, due to factors such as the presence of shallow groundwater or pathways for communication with deeper groundwater; proximity to surface water, including lakes, rivers, perennial or intermittent streams, creeks, irrigation canals, and wetlands. Additionally, areas classified for domestic use by the Water Quality Control Commission, local (water supply) wellhead protection areas, areas within 1/8 mile of a domestic water well, areas within 1/4 mile of a public water supply well, ground water basins designated by the Colorado Ground Water Commission, and surface water supply areas are sensitive areas.

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

SURFACE WATER

1. Are there any intermittent 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:

   If yes, describe location relative to facility:
2. Could a potential release from the facility reach intermittent 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

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): Drilling pit north of the pad

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 ≤ $1.0x10^{-7}$ 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 section of this sensitive area determination, there are no intermittent drainage features located within a ¼ mile of the proposed facility. The facility, as it currently proposed to be constructed, limits the direction of a potential release to the eastern and southern sides. If potential release were to migrate off the facility on the eastern side, flow would be to the east southeast following the natural terrain of the surrounding area. If a potential release were to migrate off the southern side flow would be to the south southwest following the natural terrain of the surrounding area. During facility construction, Best Management Practices (BMPs) are slated to be constructed in the form of an earthen perimeter berm along the graded edge of the fill slope sides along with a raised pad entrance and diversion ditches long the toe of the fill slope sides greatly reducing any potential fluid migration off site. All newly constructed BMPs should be closely monitored and maintained to ensure complete on-site containment of a potential release.

The State Engineers Office and USGS records were reviewed and there are no permitted water wells in the immediate vicinity of the proposed facility. The closest permitted water well (permit #29793) is located 7,895 feet (1.50 miles) to the southwest and would not provide accurate information on the depth to groundwater. Based on aerial photography review, the vegetative cover in the immediate vicinity of the proposed facility appears to consist of primarily bunch grasses, sage, and juniper and does not indicate the presence of shallow groundwater. There was no visual evidence of any springs or seeps. In addition, based on the topographic setting of the proposed facility (ridgeline), the depth to bedrock (Wasatch FM) would be quite shallow and most likely devoid of shallow groundwater in the immediate vicinity. Therefore, it could be assumed that the depth to groundwater, if present, is most likely greater than 100 feet. Thus, the potential to impact groundwater would be deemed to be low.

Based on the information collected during the desktop review, the potential for impacts to any intermittent drainages and groundwater would be deemed to be low. Therefore, the facility should be designated as being in a non-sensitive area.

Inspector Signature(s): _____ Date: 4/2/2020

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