

Sensitive Area Determination Checklist

TEP Rocky Mountain, LLC		
Person(s) Conducting Field Inspection	None conducted	
Site Information		
Location:	DOE RM 2-8 Well Pad	Time: N/A
Type of Facility:	Existing Well Pad w/ Limited Expansion	
Environmental 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: Two (2) unnamed USGS identified intermittent drainages.

If yes, describe location relative to facility: One (1) unnamed USGS identified intermittent drainage is located 24 feet to the east of the southeastern edge of disturbance and the second USGS identified intermittent drainage is located approximately 25 feet southwest of the southwestern edge of disturbance.

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 southeastern and southwestern sides side of the facility, flow would be directly towards and into the unnamed intermittent drainages.

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

High during periods of intermittent flow Low during periods of no flow

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 $\leq 1.0 \times 10^{-7}$ 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 are two (2) unnamed USGS identified intermittent drainages located within a ¼ mile of the existing facility. The facility, as it currently proposed to be expanded, limits the direction of a potential release to the southeastern and southwestern sides. If potential release were to migrate off the facility on these sides, flow would be to the southeast and southwest towards and directly into the unnamed intermittent drainages. During the limited facility expansion Best Management Practices (BMPs) will be in place such as diversion ditches, sediment traps and other measures. All installed BMPs should be closely monitored and maintained to ensure complete site containment in the event of a potential release. It should also be noted that the soil stockpiles on the southwestern side and potentially the southeastern side could aid in preventing a potential release from reaching either of the two intermittent drainages.

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-MH) is located 4,847 feet to the south 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 existing facility appears to be somewhat sparse and consists 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. Based on the topographic setting of the facility, it could be assumed that the depth to groundwater, if present, is most likely greater than 80 feet. Thus the potential to impact groundwater would be deemed to be low.

Based on the information collected during this desk top review, the greatest potential for impacts would be to the unnamed USGS identified intermittent drainages located to the southeast and southwest of the existing facility. If a potential release were to migrate off the facility on the southeastern and southwestern sides, flow would be to the southeast and southwest a very short distance where it would enter the unnamed intermittent drainages. Both drainages exhibit very defined channels with little or no debris/vegetation indicating they do flow intermittently during the year most likely in the early spring and during heavier precipitation events. If a release were to enter either drainage during periods of intermittent flow, impacts could potentially reach the Colorado River as the drainage features have direct hydraulic connection to the river. However, the severity of potential impacts to the Colorado River is not known but could be fairly low due to the distance to the river and the fact the drainage feature is fed by several smaller drainages further to the south prior to entering the Colorado River. With the close proximity of the intermittent drainage features to the southeast and southwest and the high potential for impacts during periods of intermittent flow, the facility would be classified as being in a sensitive area.

Inspector Signature(s): Mark E. Mumby Date: 8/27/2019

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