

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	

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 ephemeral drainage.

If yes, describe location relative to facility: The unnamed ephemeral drainage is located 189 feet to the southwest of the proposed 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. If a potential release were to migrate off the southwestern side flow would be to the southwest towards the ephemeral drainage.

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

Moderate to actual surface water features Low to actual flowing surface water

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 is one (1) unnamed ephemeral drainage 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 tend to migrate to the east southeast onto the adjacent hill side. If a potential release were to migrate off the southern side flow would be to the south southwest where it could potentially enter the unnamed ephemeral drainage to the southwest. However, 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 this desk top review, the greatest potential for impacts would be to the unnamed ephemeral drainage located to the southwest. If a potential release were to migrate off the facility on the southern side, flow would be to the south southwest and could potentially impact the unnamed ephemeral drainage. If a potential release were to enter the drainage during periods of ephemeral flow, impacts could potentially reach the Colorado River as the drainage feature has hydraulic connection to the river. However, the severity of potential impacts to the Colorado River is not known but would most likely be very low due to the distance to the river and the fact the drainage feature is fed by several smaller drainages further to the southeast prior to entering the Colorado River. In addition, a release would have to occur simultaneously with an ephemeral flow event to potentially impact the Colorado River. Therefore, it has been determined through this desk top review that the potential to impact groundwater and actual flowing surface water has been deemed to be low. However, the close proximity of ephemeral drainage to the southwest and the fact the Colorado River could



potentially be impacted during an ephemeral flow event, the facility should be classified as being in a sensitive area.

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

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