

Sensitive Area Determination Checklist

TEP Rocky Mountain, LLC		
Person(s) Conducting Field Inspection	None Conducted	
Site Information		
Location:	DOE 1-M-18 Cuttings Management Area	Time:
Type of Facility:	Proposed Cuttings Management Facility	
Environmental Conditions	N/A	
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 (1) unnamed USGS identified intermittent Drainage

If yes, describe location relative to facility: The unnamed intermittent drainage is located 199 feet to the east of the proposed 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. If a potential release were to migrate of the eastern side flow would be to the east or south along the access road and towards the unnamed intermittent drainage.

3. 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

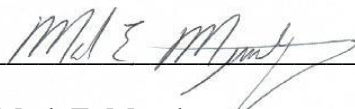
Additional Comments:

As stated in the surface water portion of this sensitive area determination, there is one (1) unnamed USGS identified intermittent drainage located within a ¼ mile of the proposed facility. The facility, as it is currently proposed to be constructed, limits the direction of a potential release to the eastern side. If a potential release were to migrate off the facility on this side, flow would be to the east across the access road towards and into the intermittent drainage. During facility construction, Best Management Practices (BMP's) should be installed in the form of an earthen perimeter berm on all fill slope sides. If feasible, a diversion ditch should be constructed along the toe of the fill slope sides as well. A raised pad entrance should also be constructed to prevent any potential fluid migration from migrating out of the entrance to the facility. All newly constructed 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 there are no permitted water wells in the immediate vicinity of the proposed facility. The closest permitted water well is located 4,533 feet to the east southeast 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 be fairly sparse and consist of primarily bunch grasses and sage and does not indicate the presence of shallow groundwater. There was no visual evidence of any springs or seeps. In addition, the existing facility is constructed at the base of fairly steep hillside where the depth to bedrock (U. Wasatch or L. Green River Formations) is most likely quite shallow. Based on the topographic setting of the proposed facility it could be assumed that the depth to groundwater, if present, would be in excess of 100 feet if not greater.

Based on the information collected during this desktop review, the potential to impact groundwater has been deemed as low. The greatest potential for impacts would be to the unnamed intermittent drainage located to the east of the proposed facility. If a potential release were to migrate off the facility on the eastern side, flow would be to the east across the access road and down a steep embankment where it could enter the unnamed intermittent drainage. The drainage does exhibit a fairly defined channel with little or no debris/vegetation indicating it does flow intermittently during the year most likely in the early spring and during heavier precipitation events. If a release were to enter the drainage during periods of intermittent flow, impacts could potentially reach the Colorado River as the drainage feature has 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 tributary and flows into a larger intermittent drainage feature prior to entering the Colorado River.

With the high potential for impacts to surface water and potentially the Colorado River during periods of intermittent flow, the existing facility should be designated as being in a sensitive area.

Inspector Signature(s):  Date: 5/30/2018

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