

Federal WMC 24-17 Pad

Pre-Application Formal Consultation Summary



INTRODUCTION

During the initial planning phase of the Federal WMC 24-17 Pad, a pre-application consultation process occurred between representative of the Colorado Oil and Gas Conservation Commission (“COGCC”), the Bureau of Land Management (“BLM”), Colorado Parks and Wildlife (“CPW”), Garfield County (“GarCo”) and TEP Rocky Mountain LLC (“TEP”) as described in COGCC Rule 301.f.(3). The purpose of pre-application consultation was to review and discuss the proposed Oil and Gas Development Plan and siting consideration, potential impact to resources within the project area, conditions of approval, Best Management Practices (“BMPs”), and the general permitting process and timing of proposed development. Pre-application consultation provides the opportunity for collaboration between the operator and regulatory agencies.

PRE-APPLICATION CONSULTATION RELEVANT LOCAL GOVERNMENT

Prior to submittal of the Oil and Gas Development Plan (OGDP) and Oil and Gas Location Assessment (Form 2A) TEP sent formal notice to Garfield County, the local government with land use authority over siting of the proposed WMC 24-17 pad, as required by COGCC Rule 302.e and Rule 303.e.(2) & (3).

A virtual meeting was held with representative from Garfield County and TEP on April 20, 2021. During this meeting TEP review the development plan as described in the Plan of Development included as an attachment to the Form 2A for this location. Garfield County stated that since this location is on public lands and since the location does not trigger an Alternative Location Analysis that formal review would not be necessary. The currently Garfield County Land Use Regulation classify this location as Use by Right or Exempt from land use regulation through Garfield County. However, Garfield County did state that they are review their currently land use code and are in the process of drafting amendment that may require future location to go through a permitting process with the county.

PRE-APPLICATION CONSULTATION FEDERAL AGENCY

Prior to submittal of the OGDP and Form 2A, TEP requested to meet with representatives from the COGCC, BLM, and CPW to field visit the proposed pad location and discuss any potential operational or resource related concerns that these agencies may have with the WMC 24-17 Pad development plan. Three (3) formal onsite occurred prior to application submittal as outlined below.

- 1) August 18, 2020: Initial review of Oil and Gas Location
- 2) August 26, 2020: Follow-up review of pipeline corridor with BLM and midstream provider
- 3) October 16, 2020: Follow-up review of Oil and Gas Location with focus on Wildlife Impacts

Summary of August 18, 2020 Pre-Application Consultation

On August 18, 2020, TEP held a field onsite review of the proposed development plan for the WMC 24-17 Pad with representatives from the BLM, COGCC, and West Water Engineering (environmental contractor). Prior to hiking out to the Oil and Gas Location, TEP provide an oral summary of the proposed operations and handed out preliminary materials for the group to review during the site visit. COGCC’s representative was present for the initial discussion but was not able to hike to the location due to other commitments. The following outlines the main topic of discussion during the onsite and a brief summary of how the recommendations or requested changes were resolved:

- The development project is located within a Visual Resource Management Class III area which allows minor changes to the viewshed. During the construction, drilling, and completion phase of

the project, the fill slope would be evident in the background view from the valley floor. There is limited vegetation screening along the fill slope. At reclaim, the slopes will be pulled back to blend the site into the natural landscape, which will reduce the impact to the viewshed. BLM requested that the gambel oak brush thicket at the northeast corner of the pad be avoided to help provide screening. TEP agreed to modify the construction of the fill slope at this corner to avoid the gambel oak thicket by installing a small boulder wall along the southwest side of the gambel oak stand.

- Excess basalt rock/boulders. Placement of boulders along access road cut slope and/or portable rock crusher for road surfacing.
- BLM identified vegetation that may qualify as wetlands. A wetlands delimitation / survey was requested and was complete by West Water Engineering.
- Group discussed general routing of the pipeline corridor. BLM requested a follow up onsite to review the pipeline corridor with TEP's midstream partner. The pipeline onsite was held on August 26, 2020. See details below. BLM also requested that the existing range fence be re-installed along the east side of the pipeline corridor to avoid fence crossings when maintenance is conducted, and requests further review during the follow-up onsite.
- During review of the preliminary layout, the BLM stated that the topsoil windrow needs breaks. After future review TEP determined that relocation of the topsoil would provide better management of topsoil. The topsoil was relocated to a single stockpile at the east end of the pad. See construction layout drawing for details.
- BLM requested installation of a steel frame gate where the road crosses the east side of TEP's property line.
- BLM requested confirmation that the City of Rifle water intake is no longer in use. TEP sent a copy of City of Rifle Ordinance No. 7 Series of 2018 to BLM documenting that Beaver Creek is no long part of the Rifle Watershed District.

Summary of August 26, 2020 Pre-Application Consultation

During the previous onsite held on August 18, 2020, BLM requested an onsite to review the pipeline corridor in more detail to verify the position of the corridor between the WMC 24-17 Pad and the RU 23-17 Pad, and to evaluate visual impacts of the project. On August 26, 2020, TEP held a field onsite with representatives from the BLM and Summit Midstream to review the proposed pipeline corridor planned for construction during development of the WMC 24-17 Pad. The group met on the RU 23-17 Pad and hiked up the proposed corridor, which follows an existing range fence, to the WMC 24-17 pad to evaluate the proposed project. The following outlines the main topics of discussion during the onsite, and a summary of how the recommendations or requested changes were resolved:

- During the onsite the group discussed the possible alternatives to the proposed road. The group agreed that following the old range fence would minimize new disturbance and visual impacts.
- BLM confirmed from the previous onsite that the existing range fence should be re-installed along the east side of the proposed pipeline corridor to provide ease of maintenance and easier path for wildlife movement. TEP agreed and stated that a wildlife friendly fence will be used.
- The group discussed the proposed width of the pipeline corridor. BLM recommended a smaller width to minimize visual impacts. The group agreed to a 50' wide construction corridor for pipeline installation, which would provide safe working conditions for the construction crew and would minimize visual resource concerns to the extent possible.
- Since the existing linear scar created by the range fence would become more obvious following construction, the BLM will require thinning of vegetation adjacent to the pipeline corridor to

minimize visual impact of the linear pipeline corridor. BLM reviewed this further after the onsite and determined that approximately two (2) acres of vegetation thinning will be required.

- The group reviewed the proposed pipeline corridor around the existing RU 23-17 pad and determined that the pipeline route should follow the outer perimeter of the pad location to minimize impacts to existing reclamation and permitter fencing.

Summary of October 16, 2020 Pre-Application Consultation

BLM's wildlife biologist and representatives from CPW were not available to attend prior onsite. Therefore, a follow up onsite was held on October 16, 2020, to review the proposed project with BLM and CPW and discuss any potential impacts to wildlife. The group met at the Caerus O-18 Pad and hiked the proposed access road to the WMC 24-17 pad location. The following outlines the main topic of discussion during the onsite and a summary of how the recommendations or requested changes were resolved:

- BLM and CPW both reviewed the project prior to the onsite and determined that there are no wildlife related concerns regarding the siting of the proposed WMC 24-17 Pad, proposed access road, or pipeline corridor.
- BLM will require raptor/bird surveys prior to any construction, drilling, or completions activities planned to occur during the raptor nesting season or the BOCC-nesting season.
- CPW and TEP discussed the existing access road crossing on Beaver Creek which is within cutthroat trout designated crucial habitat and native fish and other native aquatic species conservation waters. The following measures were discussed:
 - o Locating a spill response trailer within the vicinity (RU 31-12V Pad) of the creek crossing to ensure spill response materials are immediately accessible in the event of a spill or release.
 - o CPW express concern regarding the use of Magnesium Chloride and fresh water from other sources which could impact the health of aquatic wildlife in Beaver Creek. Water for dust suppression will be pulled directly from Beaver Creek or a potable water source will be used for dust suppression.
 - o Storm water BMPs are in place along the lease road to minimize potential for sediment run off and impacts to aquatic wildlife within the creek.
- BLM and TEP reviewed the vegetation treatment areas adjacent to the proposed pipeline corridor. The two (2) acres of vegetation treatment along the pipeline corridor to satisfy VRM Class III will be defined and flagged during pre-construction onsite.
- BLM has concerns over the size of tanks and suggested using low profile tanks. BLM and TEP agreed to re-evaluate tank heights following initial pad construction to determine the impacts on the visual landscape. Tanks will be located along cut side of the pad and may not have significant impact on visual resources.

CONCLUSION

As a standard best practice during initial planning of a proposed oil and gas location, TEP consults with the associated parties to ensure the oil and gas location is sited in a way that minimizes adverse impacts to public health, safety, welfare, the environment, and wildlife resources. Pre-application consultation and site visits are key to ensuring that all parties are informed of the proposed development plan, and have the opportunity to provide feedback prior to the formal application submittal.

Based on discussions with the BLM, COGCC, CPW, and the associated surface owners during the planning process, TEP has revised the development plan to address their concerns and recommendations.

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Pre-Application Consultation BLM Meeting Notes

AUGUST 18, 2020 PRE-APPLICATION CONSULTATION ONSITE NOTES

Attendees

Terra (TEP): Adam Tankersley, Trevor Burrell, Bryan Hotard, Dustin Welsh
BLM: Jim Byers, Carmia Woolley
WestWater Engineering: Leah Weckworth

Summary of Resource Surveys

Cultural – survey planned for before 8/26/20 as landowner restricts access for hunting seasons.

Bio – survey planned for before 8/26/20 as landowner restricts access for hunting seasons. WWE will conduct review for PEHA habitat and initial review for wetland determination in fall 2020 with potential of final wetland determination in spring 2021.

Paleo – existing projects in proximity have not needed paleo survey previously. Check with Vanessa.

Air – operator will submit project details BLM Air Emission Tool.

Applicable Federal Lease Stipulations

COCO50944 issued in 1990 has an No Surface Occupancy lease stipulation that identifies critical watershed protections in W1/2 of Section 17. This stipulation was initially included in 1984 RMP and was designed to protect City of Rifle's Beaver Creek watershed. Need to contact City of Rifle and determine the nature and degree of watershed protections given the number of wells that have been built and are operating in the watershed.

Check with Sylvia if a Timing Limitation stipulation is applicable given the latest mapping of winter habitats by CPW.

Discussion

The WMC 24-17 well pad (located in SE¼SW¼ of Section 17, Township 7 South, Range 93 West, 6th P.M.) sets at north edge of Flatiron Mountain with the south edge against the fenced National Forest boundary and the north edge limited to the flatter portions of the site. The well site is planned for 17 new Federal wells drilling into Federal lease underneath USFS. This is the only TEP pad sited on BLM surface that will be access Federal minerals underlying USFS lands in this portion of the field. The road and well pad would be built within BLM's Class III VRM area allowing for minor changes to the viewshed. SIMOPS are planned for the pad location. Drill cuttings would be stored in a drilling pit built at the south side of the location. There is no timeline established yet for this project.

The group hiked the flagged road (3000+ feet in length) beginning at Caerus' O18 pad (Leverich surface) east across TEP parcel and BLM to the proposed pad. The route crossed an existing range fence line on east side of TEP parcel. Much of the project site is covered with layer of basalt rock. Jim pointed out the use of boulders along the O18 road cut slope as a way to cut down on the amount of rock that will be developed for this project. He also mentioned using portable rock crusher to breakdown and surface the new access road with basalt. The new road passes through sagebrush and mixed mtn shrub veg types. Segments of the road near the O18 pad and west of the proposed pad cross through vegetation that may

qualify as wetlands (to be determined by WWE survey during fall 2020 and spring 2021 follow-up survey of hydrologic component).

Days prior to the onsite, TEP decided to shift the pad, so the pad was not exactly staked showing this change. Trevor used his revised plat drawing on his GPS unit to show the updated change in the pad layout. Max cut is 27.0 feet with a maximum fill of 35.9 feet. During the pad construction and drilling phases of the project, the fill slope of the pad would be evident in background view from the valley floor. In order to fit into the landscape given the limited flat topography, the pad would be sited with very limited vegetation screening along the fill slope edge. Pad slopes would be built with 2:1 on the SW cut slope blending to 1.5:1 while the fill slopes would be built at 1.5:1 slope. At the time of interim reclamation, the slopes would be pulled back and allow better opportunity to blend the site into the landscape with reduced impacts to the viewshed.

For the next field visit (see action items), Adam will provide revised cut/fill sheet. The group can also conduct final review and flag the pipeline route. The south side of the pad would be built directly against the USFS boundary with the slopes at the SW corner built at 2:1 so that tanks and units can be set at time of pad build allowing for adequate space and slope at time of interim reclamation.

The north (fill) side allows suitable space for a large topsoil windrow and appropriate stormwater structures. Jim indicated that topsoil windrow will need break(s) to allow storm water passage and catchment. He pointed out an oak brush thicket at east end of site what would be optimal to leave undisturbed during construction as it serves as screening (if feasible pending new plat prep).

The proposed pipeline alignment off the NE corner of the pad was reviewed hiking approximately 1700 feet from the proposed pad north along the existing range allotment fence to the RU 23-17 pad. The new gas and produced water lines would be buried downslope to the RU 23-17 pad and connect with the existing TEP and Summit pipeline infrastructure. Hiking the proposed alignment, Jim suggested the pipelines traverse off the NE pad corner and follow the upper edge of an aspen stand until it intersects the fence line. When following the fence line, he said it would be best to use the old dozer line that was built for the initial fence construction which flip-flopped across either side of the fence. He also suggested that the fence follow the east side edge of the pipeline corridor when the pipeline is reclaimed to avoid any fence crossings when maintenance is conducted in future years.

Action Items

TEP Rocky Mountain LLC:

- 1) Need installation of steel frame gate at road intersection with existing range fence on east side of TEP parcel (incorporate into road package).
- 2) Prepare and share revised pad plats showing drilling pit/east side changes

Bureau of Land Management:

- 1) Jim Byers:
 - a. Follow-up discussion with Eric DeKam regarding the amount of basalt rock to be encountered during road and pad build. Consider use of boulders along road cuts like the examples of armored road cuts west of O18 pad. Discuss other options to deal with large volume of boulders generated on the job.
 - b. Establish another site visit at later date with TEP, CPW, COGCC, and BLM staff to review updated plat package. Focus on use of BMPs to satisfy BLM's Class III VRM objectives.

- 2) Wesley Toews:
 - a. Need to contact City of Rifle and determine the nature and degree of watershed protections given the number of wells that have been built and are operating in the watershed.
- 3) Sylvia Ringer:
 - a. Determine if project lies within current mapping for big game winter habitat and enforcement of the January 16-April 29 Timing Limitation stipulation.

AUGUST 26, 2020 PRE-APPLICATION CONSULTATION ONSITE NOTES

Attendees

Terra (TEP): Adam Tankersley, Trevor Burrell, Wayne Gallahan

BLM: Jim Byers, Wesley Toews

Summit Midstream: Cameron Bingham, Grayson

Discussion

The group met at RU 23-17 pad at 1:30 pm and hiked along the proposed natural gas and produced water pipeline route which follows the existing range allotment fence uphill of the RU 23-17 pad to the east edge of the WMC 24-17 pad. The fence was dozed for ease of fence installation years ago and the aspen trees and brush have regrown along the line. Jim suggested that the old dozer scar be used again for the pipeline and that the fence be restrung on one (east) side of the pipeline corridor to avoid rancher having to continually cross the fence for maintenance. That would make big game travel less restrictive since the existing fence alignment crisscrosses the old dozer path. The site has basalt boulders across its surface like the remaining portion of the project.

An 8-inch gas line and 4-inch water line would be collocated and buried in a trench along the proposed alignment. Condensate would remain store on pad location in two 500 bbl tanks. During well completions five 4½-inch steel lines would be laid on the surface to deliver frac water and collect flowback fluids. The group agreed that a 50-foot disturbance corridor width would be necessary to safely install the pipelines. Estimated length is approximately 2100 feet.

At the proposed pad location, the group discussed the best location for the proposed meter and pipeline alignment across the pad. It was decided after considerable review, that the pipeline should come off the west side of the pad and follow the inside edge of the limit of disturbance where the line would hook under the north side of the footprint and bear east to meet with the existing fence line corridor and then 90 degree turn down the proposed fence/pipeline alignment to connect with the existing water line and gas line infrastructure at the RU 23-17 pad. Putting the lines off the location would ensure that the interim reclamation work of the pad could be accomplished without any impediments related to pipeline location.

Jim indicated that the BLM visual rating for the project is VRM Class III which allows minor modification of the landscape. Given that the pipeline would be incorporated into the existing fence line “linear” feature, the healed scar would become more obvious to the viewer. Jim said that vegetation removal along the north-south alignment would be needed to help reduce the contrast created by the linear pipeline corridor. Zigzagging the corridor while following the old dozer line for the fence would also help reduce the linear contrast. The group determined that the east side of the pipeline corridor is likely the best side to re-install the fence along the entire pipeline alignment.

Follow-up Actions

Need feedback from BLM Range manager, Isaac Pittman regarding the fence reinstallation after the pipeline corridor is reclaimed.

OCTOBER 16, 2020 PRE-APPLICATION CONSULTATION ONSITE NOTES

Attendees

Terra Energy Partners LLC (TEP): Adam Tankersley, Trevor Burrell, Bryan Hotard, Makayla Grant

BLM: Jim Byers, Sylvia Ringer

Colorado Parks and Wildlife (CPW): Taylor Elm, Elissa Slezak, Danielle Neumann

Discussion

The group parked east of Caerus' O18 pad on TEP parcel and hiked east along the flagged road alignment to the proposed well pad on BLM. The pad lays adjacent to the BLM/USFS property boundary atop Flatiron "Mountain" (named "Mesa") with the limit of disturbance (LOD) staked within 10-15 feet of the surveyed property line. The proposed Federal wells would be drilled into Federal minerals under National Forest land.

The remote frac operations would occur on the existing RU 44-7 and the proposed new gas and produced water pipelines would run north from the NE corner of the WMC 24-17 pad down to the existing RU 23-17 pad and TEP's existing gathering line systems for natural gas and produced water. Temporary surface water lines would also follow the pipeline corridor downhill between the WMC 24-17 and RU 23-17 pads.

No concerns with the WMC 24-17 well site or road alignment were expressed by the wildlife personnel (BLM or CPW). Sylvia pointed out that most recent CPW mapping for big game winter protections takes precedent over any GIS mapping that is shown in the 2015 CRVFO RMP. And the latest CPW mapping does not show any of the immediate WMC 24-17 project area within big game winter range or elk production area so the 5-month winter timing limitation (12/1 thru 4/30) would not apply to the WMC 24-17 access road or pad. However, Jim confirmed with Adam that the winter TL period along BLM road that accesses the RU 44-7 remote frac pad runs from 1/1 thru 4/29, so well completion operations would be subject to the standard Flatiron Mesa winter TL period.

TEP would obtain the appropriate bird survey prior to any construction, drilling or completion work that would occur during the raptor nesting season or the BOCC-nesting season to ensure protections of nesting birds.

Adam pointed out that a steel frame gate would be installed within the existing range fence that the road crosses near the BLM/TEP property line.

Taylor and Adam discussed the cutthroat trout stream buffer for the access road. To address CPW consultation on that matter, the protective measures include:

- 1) The crossing structure at Beaver Creek will not require additional work since the FS had recently improved it.
- 2) There is an emergency spill response kit in close proximity to the RSO habitat (Adam will indicate location).
- 3) For dust suppression, TEP will look into using water from a potable water source in that location to avoid the spread of disease organisms and aquatic nuisance species.
- 4) Adam will work with Dave K to identify the stormwater measures that will be implemented through the RSO area along the access road.

Proposed COA Discussion

Jim discussed limiting the impacts to the existing clump of Gambel oak trees at the NE pad corner. It was agreed to prepare a COA to use a boulder "wall" built at the foot of the fill slope along the edge of the oak trees to hold and contain soil material from impacting or covering the standing trees.

Given the amount of basalt boulders to be generated during road and pad construction, such boulders can be placed along the open cut slopes of pad and new access road.

An additional COA discussed with Adam, was the use of adaptive management requiring no more than 2 acres of vegetative treatment along the pipeline corridor to "feather" the straight-line edge and satisfy VRM Class III objective of minor modifications within the landscape. Jim will draft and propose these 2 COAs to TEP prior to NEPA and APD approval.

Size of production tanks planned for the pad could be downsized to low profile tanks once the pad is built depending on the appearance of the well pad in the visual landscape. This would result in larger footprint for the planned condensate and blowdown tanks.