

Block 23 – Description of Avoidance, Minimization, and Compensation

Introduction

A key provision of the Section 404(b)(1) guidelines is the “practicable alternative test” which states that the

“U.S. Army Corps of Engineers only permits discharges of dredged or fill material into waters of the U.S. that represent the least damaging practicable alternative, so long as the alternative does not have other significant adverse environmental consequences.”

This is especially true when the proposed project is not water dependent. The Applicant must demonstrate there are no less damaging sites available and all onsite impacts to waters of the United States have been avoided to the maximum practicable extent possible. For an alternative to be considered “practicable”, it must be available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the overall project purpose.

The Applicant considered the following siting criteria to determine the appropriate alternative:

- location of the Site in relation to the associated oil/gas well
 - available access to proposed well location
 - consolidation of production equipment and pipeline routes
 - costs of alternatives
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No action alternative

Under this scenario, the Applicant would not be able to dispose of produced water at the Site. The Applicant does not view this scenario as a viable alternative. In the State of Texas, oil/gas operators are responsible for disposing of produced water in a safe and efficient manner.

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Block 23 – Description of Avoidance, Minimization, and Compensation, Continued

**Offsite
alternative 1**

The Applicant searched for alternate locations within the lease (outside of the immediate area of the Site). To utilize an offsite location, the Applicant would have to find an upland site outside of the current area and utilize pipelines to transport produced water from the associated oil/gas well. Utilizing an offsite location would 1) considerably increase the amount of wetlands impacted due to the construction of pipelines to the Site, 2) double the construction cost associated with the Site and pipeline placement, and 3) significantly increase the risk of environmental impacts due to potential pipeline failure.

The immediate area outside of the Site includes USFWS-mapped wetlands in all directions within the lease. The Applicant estimates that constructing one wellpad, associated pipelines, and an access road would impact at least 2.75 acres of potential wetlands. The Applicant realized this alternative would be the most environmentally damaging; therefore, deemed this as a non-viable alternative.

**Onsite alternative
1**

Additional plans for the Roca-Negra SWD No. 1 included drilling one well near the existing Roca-Negra No. 1 tank battery (located 4,000 ft northwest of the Site). This would require the construction of a 0.74 acre wellpad (within wetlands) and approximately 2.75-acres of associated pipelines. The Applicant considered utilizing the existing access road for pipeline construction; however, the road would need to be widened approximately 15 additional feet, impacting surrounding wetlands.

This would have caused further unnecessary impacts to area wetlands; therefore, the Applicant deemed this as a non-viable alternative.

**Onsite alternative
2 (Applicant's
Preferred
Alternative)**

The Applicant has determined that utilizing the Roca-Negra No. 1 well location will greatly minimize immediate and potential impacts to surrounding wetlands. In this preferred scenario, the Applicant will be able to construct a 0.67-acre SWD wellpad near the associated oil/gas well. Offsite pipelines will be unnecessary and all produced water will be disposed of on location. Additionally, the wetland area to be filled had been previously impacted during the drilling of the Roca-Negra No. 1 well. The Applicant will ensure construction activities are within the bounds of the previously impacted area.

The Applicant has determined that a total of 0.67 acre of wetland will be impacted from this preferred alternative.