



December 2, 2020

Ms. Susan Bachini Nall  
Chief, Colorado West Section  
U.S. Army Corps of Engineers, Sacramento District  
400 Rood Ave # 224  
Grand Junction, Colorado 81501  
Delivered via email – susan.nall@usace.army.mil and SPKRegulatoryMailbox@usace.army.mil

Mr. Colin Larrick  
Water Quality Program Manager  
Ute Mountain Ute Tribe, Environmental Programs Department  
520 Sunset Blvd. or P.O. Box 448  
Towaoc, Colorado 81334  
Delivered via email - clarrick@utemountain.org

***RE: Pre-Construction Notification (PCN) for Nationwide Permits 3 and 43, and  
Request for Individual Clean Water Act Section 401 Water Quality  
Certification  
Running Horse Pipeline MP 29 Mancos Wash  
Montezuma County, Colorado; Ute Mountain Ute Tribe Lands  
SME #200037; DA# SPK-2020-00866***

Dear Ms. Nall and Mr. Larrick:

SME Environmental, Inc. (SME) was retained by Navajo Nation Oil and Gas (NNOGC) to procure Clean Water Act (CWA) Section 404 and Section 401 authorizations for the above-referenced project. The purpose of the NNOGC Mancos Wash project is to address the potential hazard along the Running Horse Pipeline (RHP) where the existing pipeline crosses the Mancos River at MP 29. The existing RHP has approximately 10-15 feet (ft) of pipeline exposure in the Mancos River at this location.

We request CWA Section 404 authorization for this crossing pursuant to Nationwide Permit (NWP) 3 for Maintenance and NWP 43 for Stormwater Management Facilities. Pre-Construction Notification (PCN) to the U.S. Army Corps of Engineers (USACE) is required.

On March 3, 2017, the Ute Mountain Ute Tribe denied CWA Section 401 Water Quality Certification (WQC) for their Tribal lands in Colorado, New Mexico, and Utah. Individual Section 401 WQC is required for all activities on all Ute Mountain Ute Tribe lands.

This letter serves as a request for verification from the USACE that the proposed project meets the terms and conditions outlined in NWP 3 and NWP 43 to satisfy Section 404 of the CWA, and request for Individual CWA Section 401 WQC from the Ute Mountain Ute Tribe Environmental

Programs Department. The following information will allow you to process these requests. Unless noted otherwise, referenced figures are provided within Attachment 1.

## **CLEAN WATER ACT SECTION 404**

### **Nationwide Permit Compliance**

The proposed project meets the terms and conditions set forth in NWP 3 for Maintenance and NWP 43 for Stormwater Management Facilities. Likewise, the proposed project will comply with applicable general and regional conditions associated with CWA Section 404, as outlined below.

#### ***Nationwide Permit General Conditions***

1. *Navigation* – project does not involve impacts to navigable waters.
2. *Aquatic Life Movements* – project has been designed to comply.
3. *Spawning Areas* – project has been designed to comply.
4. *Migratory Bird Breeding Areas* – project has been designed to comply.
5. *Shellfish Beds* – not applicable to this project.
6. *Suitable Material* – only suitable material will be utilized.
7. *Water Supply Intakes* – not applicable to this project.
8. *Adverse Effects From Impoundments* – not applicable to this project.
9. *Management of Water Flows* – project has been designed to comply.
10. *Fills Within 100-Year Floodplains* – project will comply with applicable FEMA-approved State or local floodplain requirements.
11. *Equipment* – project will be implemented to be in compliance.
12. *Soil Erosion and Sediment Controls* – Best Management Practices (BMPs) will be installed, as applicable.
13. *Removal of Temporary Fills* – temporary fills will be removed as soon as construction is completed to be in compliance with this condition. Further, temporarily impacted areas will be revegetated, as appropriate.
14. *Proper Maintenance* – project will comply.
15. *Single and Complete Project* – project is considered a single and complete project.
16. *Wild and Scenic Rivers* – not applicable to this project.
17. *Tribal Rights* – Project is being coordinated with the Ute Mountain Ute Tribe (Environmental Programs Department) and will follow all stipulations provided by the Tribe. The project will not infringe on Tribal Rights.
18. *Endangered Species* – see Section 6 of this PCN.
19. *Migratory Bird and Bald and Golden Eagle Permits* – see Section 6 of this PCN.
20. *Historic Properties* – see Section 7 of this PCN.
21. *Discovery of Previously Unknown Remains and Artifacts* – work will be halted if unknown remains are found.
22. *Designated Critical Resource Waters* – not applicable to this project.
23. *Mitigation* – see Section 5 of this PCN.
24. *Safety of Impoundment Structures* – not applicable to this project.
25. *Water Quality* – project proponent will obtain individual Section 401 WQC from Ute Mountain Ute Tribe, which is requested concurrently with verification of NWP.
26. *Coastal Zone Management* – not applicable to this project.
27. *Regional and Case-by-Case Conditions* – project will comply with all regional conditions for Colorado.
28. *Use of Multiple Nationwide Permits* – NWP 3 and NWP 43.
29. *Transfer of Nationwide Permit Verifications* – not applicable to this project.
30. *Compliance Certification* – will be submitted to the USACE upon project completion.
31. *Activities Affecting Structures or Works Built by the United States* – not applicable to this project.
32. *Pre-Construction Notification* – requires submittal of information contained herein.

#### ***Regional Conditions Applicable to All NWPs within the State of Colorado***

5. *Important Spawning Areas* – project will comply.

6. *Fens* – not applicable to this project.  
7. *Springs* – not applicable to this project.  
8. *Suitable Fill* – in addition to a concrete revetment mat, only locally excavated soils will be returned to aquatic resource areas. Temporary fills will consist of erosion control measures and spoil piles.

## CONTENTS OF PRE-CONSTRUCTION NOTIFICATION – CWA SECTION 404

### (1) **Name, address and telephone numbers of the prospective permittee;**

Navajo Nation Oil and Gas Company  
50 Narbono Circle West  
St. Michaels, AZ 86511  
Contact Name: Mr. Troy Watson

Title: Pipeline Engineer  
Email: TWatson@nnogc.com  
Phone: (505) 599-6060  
Fax: N/A

**Relationship of permittee to property:** ☐ Owner ☐ Purchaser ☒ Lessee ☐ Other

*Application is hereby made for verification that subject regulated activities associated with subject project qualify for authorization under a Corps nationwide permit or permits as described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I hereby grant to the agencies to which this application is made, the right to enter the above-described location to inspect the proposed, in-progress or completed work. I agree to start work only after all necessary permits have been received.*

**Signature of permittee**

**Date**

*Troy Watson*

12/2/2020

### **Authorized Agent Name and Signature**

**(If an agent is acting for the permittee during the permit process)**

SME Environmental, Inc. (SME)  
679 East 2<sup>nd</sup> Avenue, Unit E2  
Durango, Colorado 81301-5563  
Contact Name: Ms. Kerriane Zdimal

Title: Senior Regulatory Specialist  
Email: kerri@sme-env.com  
Phone: (970) 259-9595  
Fax: (970) 259-0050

*I hereby authorize the above named authorized agent to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application. I understand that I am bound by the actions of my agent and I understand that if a federal or state permit is issued, I, or my agent, must sign the permit.*

**Signature of permittee**

**Date**

*Troy Watson*

12/2/2020

*I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate.*

**Signature of authorized agent**

**Date**

12/2/2020

**Property Owner(s), if other than permittee:** The project is located on Ute Mountain Ute Tribe lands.

**(2) Location of the proposed project;**

The project area is located approximately 2 miles south of the intersection of State Highway 41 (SH 41) and U.S. Highway 160 (US 160) in Montezuma County Colorado ([Figure 1](#)). The current project area is within the NESW of Section 20, Township 32 North, Range 19 West, New Mexico Principal Meridian (NMPM) ([Figure 2](#)). The current project area is depicted on the Sentinel Peak SW, Colo. 7.5' U.S. Geological Survey (USGS) quadrangle map. The elevation within the current project area is approximately 4,730 to 4,780 feet (ft) above mean sea level (msl). The geographic coordinates (NAD 83) for the center of the current project area are at approximate centroid location of latitude 37.0028375° N and longitude 108.9420583° W. The current project area is located on Ute Mountain Ute Tribe lands.

**Waterbodies (if known, otherwise enter “an unnamed tributary to”):** Mancos River.

**Tributaries to what known, downstream waterbodies:** San Juan River.

**Existing Conditions:** [Figure 3](#) is an aerial photograph of the project location which is comprised primarily of an existing natural gas pipeline ROW with surrounding undeveloped land. The Mancos River bisects the project area and existing roads are in the vicinity of the project. The Aquatic Resources Delineation Report, provided as [Attachment 2](#), provides additional detail on the existing conditions at this location.

**(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause...;**

**Project Purpose.** The purpose of the NNOGC Mancos Wash, CO project is to address the potential hazard along the Running Horse Pipeline (RHP) where the existing pipeline crosses the Mancos River at MP 29. The existing RHP has approximately 10-15 ft of pipeline exposure in the Mancos River at this location. In the Pipeline Safety Regulations Code of Federal Regulations: 49 CFR 195.452(f)(1)-requires operators of hazardous liquids pipelines to define the process for identifying pipeline segments and facilities that could have an impact on public safety or the environment in the event of a failure and to ensure that adequate measures are in place and can be implemented to protect these High Consequence Areas. This rule requires operators to identify these locations, referred to as High Consequence Area segments, with a technically sound and repeatable identification process. NNOGC knows the water is a valuable resource and the protection of the water is the utmost importance to both the environment and our business.

**Project Description.** NNOGC proposes to address the immediate risk of pipeline failure by exposing the pipeline, address any corrosion concerns, re-coat the pipeline, backfill the exposed pipe and reinforce the wash with concrete revetment mats. All work is proposed to occur within the existing 50-foot pipeline right-of-way (ROW).

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*Nationwide Permit 3 - Maintenance*

NNOGC used a SMART PIG to assess the condition of the exposed pipeline location and determined that they would need to excavate an approximate trench up to 35 ft along the pipeline

to further evaluate and perform work on this section of pipeline. To maximize pipeline assessments and work maneuverability, the trench would be approximately 3 ft deep and 8 ft wide.

NNOGC proposes to address the immediate risk of pipeline failure by exposing the pipeline, address any corrosion concerns, re-coat the pipeline, and backfill the exposed pipe with native material. After the pipeline integrity assessment is complete, NNOGC will backfill with river sand and rocks inside the pipeline ROW. The backfill material will be trucked in, placed on top of the pipeline, leveled and spread across the pipeline ROW within the disturbed area. It is anticipated that approximately 10 yards of material would be needed. Access would be from the existing 50-foot pipeline ROW south of the Mancos River crossing.

Work would require the use of standard pipeline construction equipment such as backhoes and excavators. The staging of vehicles will take place on the RHP pipeline ROW south of the project area. The proposed work would occur as soon as possible to mitigate the potential for any pipeline failure.

Upon completion of the proposed maintenance work, the existing pipeline exposure location would be buried a minimum of 2 ft of material and protected by a concrete revetment mat (see Nationwide Permit 43 detail below).

#### *Nationwide Permit 43 – Stormwater Management*

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Concrete revetment mats would be installed along the bottom of the reclaimed streambed, overtop of the reburied pipeline and along the incised banks of the Mancos River. At the crossing location, the northern bank is approximately 6 ft tall and the southern bank is approximately 8 ft tall.

The purpose of the revetment mat is to protect the pipeline and stabilize the channel (bottom/banks). As depicted in the profile view (B-B') on Figure 4c, the first 4 ft of the revetment mat will be keyed in by burying the mat vertically to provide protection to the pipeline. The remainder of the revetment mat will be placed in the downstream direction at the elevation/grade of the arroyo channel bottom. The concrete revetment mat will be placed all the way to the top edge of the bank on both sides of the stream. Please see the Figure 4 set within Attachment 1. The cut banks will be recontoured to match the upstream and downstream grades before the revetment mat is set. All areas of disturbance will be seeded, as appropriate, to restore vegetation.

In stream restoration, revetments are sloping structures placed on banks or cliffs in such a way as to absorb the energy of incoming water. Many revetments are used to line the banks of freshwater rivers, lakes, and man-made reservoirs, especially to prevent damage during periods of floods or heavy seasonal rains. Many materials may be used: wooden piles, loose-piled boulders or concrete shapes. Articulating concrete revetment mats are a cost-effective, long-term solution for stream stabilization that provide a flexible alternative to riprap, gabions and rigid revetments. These flexible mats consist of 1-ft concrete blocks, spaced 6-inches apart and connected by geotextile material on one side.

From the Submar website:

- *This type of revetment mattress is an articulating concrete mat that is commonly used as protective cover for pipelines in rivers and streams.*
- *The concrete mat solution provides a long-term, continuous system of hard-armor protection for the entire length of the pipeline from high bank to high bank.*
- *The mats are considered “engineered riprap” and, in comparison to riprap, will perform better in the bed of the stream where the highest shear stresses occur.*
- *The mats can be removed and replaced for maintenance of the pipeline if necessary.*
- *The concrete mats will articulate and self-adjust with the streambed to prevent the upstream migration of future headcut erosion while encouraging growth of native vegetation.*
- *The mats allow for natural vegetation, restoring the look of a natural riparian corridor. The vegetation allows them to blend with the natural surroundings, creating wildlife habitats and increasing biodiversity within the stream.*
- *Because the mattress articulates over time and acts as a grade control structure, the hard-armor mat system will hold the current grade and prevent future degradation of the streambed. Grade control structures can provide vertical stability to the local area around the structure and also to the entire channel system, thus having far-reaching, positive impacts.*

For the above-outlined reasons, concrete revetment mats are the preferred alternative to lowering the line as it is more cost-effective and the construction results in less overall disturbance. See [Attachment 3](#) for supplemental information provided by the Contractor.

All proposed work would be confined to the existing 50 ft wide RHP ROW easement. Work would require the use of standard pipeline construction equipment such as backhoes and excavators. The staging of vehicles will also take place on the RHP pipeline ROW. The proposed work would occur as soon as possible to mitigate the potential for any pipeline failure.

**Impacts to Aquatic Resources.** [Figure 4](#) depicts all impacts to aquatic resources, which are summarized in [Table 1](#) below. The currently proposed action is planned to commence immediately upon approval and concurrence from Tribal and Federal stakeholder agencies.

**Table 1. Aquatic Resource Impacts Proposed for RHP Mancos Wash MP 29 Project.**

Impact Area	Permit Type	Aquatic Resource (Cowardin)	Temporary Impacts		
			Acres	Square Feet	Linear Feet
T1	NWP 3	R3UB	<0.01	138	6
P1	NWP 43	R3UB	0.00	286	12
<b>Total:</b>			<b>0.01</b>	<b>424</b>	<b>18</b>

The site has been designed to minimize the impact on aquatic resources with water quality measures and native vegetation specifications. However, the project may result in the following indirect adverse effects: the potential to increase erosion until the site is stable and the introduction of invasive species. As such, the design includes measures to minimize these potentials and the contractor will be required to install storm water control measures and maintain these measures throughout construction (see [Figures 4d-e](#)).

**Avoidance and Minimization.** Aquatic resources were identified within the proposed project vicinity prior to project design. However, the project involves maintenance activities proposed along a section of existing pipeline that is exposed within an aquatic resource and impacts to this resource are unavoidable. As such, boring this location is not feasible because the project involves maintenance to an existing pipeline that is exposed within the limits of aquatic resources. If a new section of pipeline were to be bored under this location, significant disturbance would still result at this location to remove the existing exposed pipeline. Further, line lowering at this location would result in greater surface disturbance (up to 800 ft of pipeline would need to be trenched, including the current project extents, to implement a line lowering project that would achieve a 4-6 foot lowering depth), significantly longer implementation (for permitting, scheduling of contractors and work), and result in substantial additional costs. Therefore, boring and line lowering are not considered practicable alternatives.

Originally, gabion baskets were proposed along the banks of the stream; however, upon further consideration, the project is not proposed to include gabion baskets. The proposed project only involves trenching and placement of a concrete revetment mat (sized 34 ft by 16 ft, with 4 ft keyed upstream of the pipeline). The proposed project would result in temporary impacts to up to 0.01 acre of aquatic resources (stream) during excavation of a temporary trench and permanent impacts to 0.01 acre of aquatic resources (stream) to bury the exposed pipeline and install a concrete revetment mat. To further avoid and minimize impacts to aquatic resources, construction activities would be minimized near the areas aquatic resources and utilize erosion control measures. Upon project completion, the site would be reclaimed. Therefore, the proposed project minimizes impacts to wetlands and the aquatic environment to the maximum extent practicable while maintaining the project purpose.

**Best Management Practices.** Standard construction practices will be implemented on-site (as applicable) to minimize impacts to aquatic resources to the maximum extent practicable during construction. BMPs will be used to prevent erosion and sediment runoff prior to, during and after construction (as necessary and applicable) to minimize impacts to important natural resources. Material resulting from construction will be placed in such a manner that it will not be dispersed by currents or other forces. Any exposed slopes will be stabilized and revegetated as soon as possible upon completion of construction.

**(4) *The PCN must include a delineation of special aquatic sites and other waters of the United States on the project site;***

Waters of the U.S. (WOUS) in the survey area were identified by SME Environmental, Inc. (SME) on October 1, 2020 using the methodology defined in the Routine Determination procedure set forth in the U.S. Army Corps of Engineers Wetlands Delineation Manual (USACE 1987) and the Regional Supplement: Arid West Region (Version 2.0). Wetland boundaries were defined based on presence of hydrophytic vegetation, hydric soils, and hydrologic indicators that under normal conditions would indicate wetland conditions; no wetlands were identified. Additionally, SME surveyed for the presence an ordinary high water mark (OHWM) in accordance with the Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008) and Regulatory Guidance Letter No. 05-05 Guidance on Ordinary High Water Mark Identification (USACE

2005).. The methods and results of this delineation are described in SME's report that is included as attachment to this document ([Attachment 2](#)).

- (5) ***If the proposed activity will result in the loss of greater than 1/10 acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan;***

The project will not result in the loss of any wetlands. Temporary impacts to aquatic resources (stream) would be restored to pre-construction elevations and re-vegetated as appropriate. BMPs would be used to prevent erosion and sediment runoff prior to, during and after construction. These BMPs would be installed before construction begins and would remain in place until construction is complete and removed as appropriate.

- (6) ***Documentation demonstrating compliance with the Endangered Species Act; and***

The following information is provided in accordance with General Condition 18 (Endangered Species). On November 10, 2020, the U.S. Fish and Wildlife Service's (USFWS) on-line Information, Planning, and Conservation (IPaC) decision support system was utilized to generate a location specific list of trust resources with potential to be impacted by the proposed project (consultation code 06E24100-2021-SLI-0084; [Attachment 4](#)). These trust resources include species and critical habitat under the jurisdiction of the Act of 1973, Section 7(c), as amended (16 U.S.C. 1531 *et seq.*). [Table 2](#) below summarizes the trust resources identified for the project; no designated critical habitat is within or adjacent to the project. A "no effect" determination is warranted for all species due to a lack of suitable habitat in or near the survey area and as no water depletions are anticipated.

**Table 2. Trust Resources Identified by the USFWS for the Project Site.**

<b>Mammals</b>
<b>New Mexico meadow jumping mouse (<i>Zapus hudsonius luteus</i>) (FE)</b>
<p><b>Habitat:</b> Emergent herbaceous wetlands and scrub-shrub wetlands adjacent to perennial flowing water are the required habitats for the New Mexico meadow jumping mouse (NMMJM). Suitable riparian/wetland habitat contains dense herbaceous vegetation with an average height of 24 inches (61 centimeters) composed primarily of sedges and forbs below an elevation of 8,000 feet (ft) [2,438 meters (m)] (USFWS 2014). When hibernating and maternal nesting, NMMJM leave the foraging habitat for adjacent locations with dry soils with woody plants (USFWS 2013).</p>
<p><b>Potential to occur in the survey area: NONE</b></p> <p>The banks of the Mancos River in and adjacent to the survey area do not support herbaceous riparian vegetation suitable to support NMMJM. Observed herbaceous vegetation includes monotypic cocklebur (<i>Xanthium strumarium</i>), reed (<i>Phragmites australis</i>), and Russian knapweed (<i>Acroptilon repens</i>). No sedge species are present in or near the survey area. This reach of the Mancos River does not appear to support a diverse variety of suitable herbaceous riparian vegetation to support NMMJM. In addition, the Mancos River may not provide sufficient flow during the height of the growing season for such vegetation to establish. NMMJM are not known to occur along the Mancos River (USFWS 2014).</p>
<p><b>Determination: NO EFFECT</b></p> <p>NMMJM are unlikely to occur in or near the survey area. No potential NMMJM habitat would be impacted.</p>

<b>Birds</b>
<b>Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>) (FE)</b>
<p><b>Habitat:</b> Dense riparian thickets adjacent to or underlain by saturated soils, standing water, streams, and/or pools from sea level to approximately 8,500 ft in elevation. Nest sites typically have a dense canopy and dense foliage from ground level to approximately 13 ft above ground surface. In Colorado, willow patches covering a minimum of 0.25 acres with at least some portion attaining 30 ft (9.1 m) of width and 6 ft (1.8 m) in height are considered suitable habitat for the Southwestern Willow Flycatcher (SWFL) (USFWS 2013a).</p>
<p><b>Potential to occur in the survey area: NONE</b></p> <p>No palustrine scrub-shrub wetlands meeting the USFWS-defined parameters for suitable SWFL habitat occur in the survey area or vicinity (within 330 feet). Woody riparian vegetation along the Mancos River in the survey area vicinity is dominated by tamarisk (<i>Tamarix</i> sp.). Narrow (generally less than 30 feet wide) bands of tall dense tamarisk occurs along the immediate banks of the Mancos River. Outside of the immediate riverbanks, the valley bottom floodplains support mixed patches of fourwing saltbrush (<i>Atriplex canescens</i>), rabbitbrush (<i>Ericameria canescens</i>), and tamarisk. These patches are lower density and generally less than 6 feet in height. No suitably expansive patches of tall, dense riparian shrubs were observed in the survey area or vicinity to support SWFL nesting. SWFL are known to nest along the San Juan River in the vicinity of Shiprock, NM (20 miles to the southeast) and the San Juan River is located approximately 2.3 miles west of the survey area. Occasionally, SWFL may briefly occur in the survey area or vicinity during the migratory seasons while migrating along the San Juan River corridor.</p>
<p><b>Determination: NO EFFECT</b></p> <p>No suitable habitat would be impacted. Any activities during the migratory season are unlikely to impact migrating SWFL. No unique migratory habitat occurs in the survey area or vicinity and migrating birds are expected to be transient.</p>
<b>Yellow-billed Cuckoo (<i>Coccyzus americanus</i>) (FT/SC)</b>
<p><b>Habitat:</b> Large tracts of deciduous broad-leaved woodland with dense, scrubby undergrowth along watercourses. In willow-cottonwood habitats, marginal conditions have been described as an intact stand of a minimum of 50 acres (20 ha) and a minimum width of 330 - 660 ft (100-200 m); suitable habitat as a stand of 100-200 acres (40-80 ha) and a width of 660 – 1,960 ft (200-600 m), and optimal habitat as a stand of more than 200 acres (80 ha) and a width greater than 1,960 ft (600 m). Habitat less than 38 acres in extent (15 ha) and less than 330 ft (100 m) wide is considered unsuitable for the Yellow-billed Cuckoo (YBCU) (Layman and Halterman 1989, Johnson et al. 2007).</p>
<p><b>Potential to occur in the survey area: NONE</b></p> <p>No suitable habitat occurs in the survey area or vicinity. No cottonwood trees (or other broadleaf deciduous trees) were visible along the Mancos River in the survey area or upstream or downstream of the survey area. YBCU are unlikely to occur in the survey area or vicinity (1/4 mile).</p>
<p><b>Determination: NO EFFECT</b></p> <p>No suitable habitat would be impacted and YBCU are unlikely to be present.</p>
<b>Fish</b>
<b>Colorado Pikeminnow (<i>Ptychocheilus lucius</i>) (FE)</b>
<p><b>Habitat:</b> Restricted to large rivers of the Colorado River basin, formerly in the mainstream Colorado River and major tributaries (Gunnison, White, Yampa, Dolores, San Juan, Uncompahgre, Animas, and Green rivers), from Mexico and Arizona to Wyoming. Present distribution drastically reduced from original. By the mid-1980s occurred only in Upper Colorado River basin of Colorado, Utah, New Mexico, and Wyoming; mainly in the Green River in Utah and</p>

<p>in the Yampa and Colorado rivers in Colorado and portions of Utah; not seen below Glen Canyon Dam since 1968. Adults predominate in the White and Yampa rivers, young in the Green River. Medium to large rivers. Young prefer small, quiet backwaters. Adults use various habitats, including deep turbid strongly flowing water, eddies, runs, flooded bottoms, or backwaters (especially during high flow). Lowlands inundated during spring high flow appear to be important habitats (USFWS 1994).</p>
<p><b>Potential to occur in the survey area: LOW</b></p> <p>The Mancos River is relatively small and does not provide suitable habitat of swift currents, eddies and backwaters necessary for all life stages of the Colorado pikeminnow. In addition, the Mancos River can dry up in the late summer (Ryden and Ahlm 1996), as was the case in 2020. The species occurs downstream of the survey area at the confluence with the San Juan River; this reach of the San Juan River is designated critical habitat.</p> <p>Colorado pikeminnow have been observed to aggregate at the confluence of the Mancos River and the San Juan River prior to and during the summer spawning season (Ryden and Ahlm 1996, Platania et al. 1991, NNDFW 2020). No records of Colorado pikeminnow have been documented in fish surveys of the Mancos River upstream of the San Juan River confluence (Reese et al 2000). Numerous studies have demonstrated Colorado pikeminnow site fidelity for home ranges and spawning areas; therefore, the probability of Colorado pikeminnow randomly occurring in the Mancos is likely low.</p> <p>Colorado pikeminnow are known to use relatively perennial tributary streams including Mc Elmo Creek, Chaco Wash, and Yellowjacket Creek (Cathcart 2014, Cathcart et al. 2015). Pikeminnow occurrences in Mc Elmo Creek appeared highest during late summer and winter and coincide with seasonal downstream movements in the San Juan River, a time when the Mancos River is most likely to be dry.</p> <p>Due to the poor habitat characteristics in the Mancos River, the seasonal drying of the river, and a lack of detections of the species in the river during past surveys (outside of the confluence with the San Juan River), Colorado pikeminnow are unlikely to occur in the survey area.</p>
<p><b>Determination: NO EFFECT</b></p> <p>No depletions to waters of the Upper Colorado River Basin are anticipated to be directly or indirectly associated with the subject NWP. The proposed action would require excavation of the bed and banks of the Mancos River. The project would not impact stream flows or significantly impact water quality within the San Juan River. Construction would occur when streamflow is low or non-existent and streamflow would be maintained during and after construction. Best management practices (BMPs) would be employed to reduce the runoff of sediment and manage onsite contaminants. Additionally, Colorado pikeminnow have evolved in a turbid environment; it is unlikely that temporary increases in sediment load impact the species (USFWS 2011a). Therefore, Colorado pikeminnow and designated critical habitat downstream of the project area are unlikely to be impacted.</p>
<p><b>Razorback sucker (<i>Xyrauchen texanus</i>) (FE)</b></p>
<p><b>Habitat:</b> Large rivers with strong currents, deep pools, and quiet backwaters. Currently found in un-impounded waters of the Green, Yampa, and mainstem of the Colorado Rivers (USFWS 2002).</p>
<p><b>Potential to occur in the survey area: NONE</b></p> <p>The Mancos River is relatively small and does not provide suitable habitat of swift currents, eddies and backwaters necessary for all life stages of the razorback sucker. In addition, the Mancos River can dry up in the late summer (Ryden and Ahlm 1996), as was the case in 2020. The species occurs downstream of the survey area at the confluence with the San Juan River; this reach of the San Juan River is designated critical habitat.</p> <p>No records of razorback sucker have been documented in fish surveys of the Mancos River (Reese et al 2000). While razorback sucker is considered a mainstem species, it has been detected in Mc Elmo Creek 150 meters upstream of the confluence with the San Juan River</p>

<p>(Cathcart et al. 2017). Razorback sucker upstream movements in the San Juan River correlate to high flows during spring runoff and the spring spawning season, and they spawn on large gravel bars (Cathcart et al. 2017).</p> <p>Similar to the Colorado pikeminnow, the razorback sucker may occur seasonally in the confluence of the Mancos River and San Juan River during spring run-off. Upstream of the confluence, the Mancos River is relatively confined, with few side channels and no large gravel bars for spawning. Due to the poor habitat characteristics in the Mancos River, the seasonal drying of the river, and a lack of detections of the species in the river during past surveys, razorback sucker are unlikely to occur in the survey area.</p>
<p><b>Determination: NO EFFECT</b></p> <p>No depletions to waters of the Upper Colorado River Basin are anticipated to be directly or indirectly associated with the subject NWP. Proposed activities are scheduled to occur during the low or no flow period when razorback suckers are unlikely to occur in the Mancos River. The proposed action would require excavation of the bed and banks of the Mancos River. The project would not impact stream flows or significantly impact water quality within the San Juan River. Mancos River streamflow would be maintained during and after construction. Best management practices (BMPs) would be employed to reduce the runoff of sediment and manage onsite contaminants. Additionally, the razorback sucker has evolved in a turbid environment; it is unlikely that temporary increases in sediment load impact the species (USFWS 2011a). Therefore, razorback sucker and designated critical habitat downstream of the project area are unlikely to be impacted.</p>
<p><b>Plants</b></p>
<p><b>Mesa Verde cactus (<i>Sclerocactus mesa-verdae</i>) (FT)</b></p>
<p><b>Habitat:</b> Mesa verde cactus (SCME) habitat is limited to clay-rich soils derived from shales of the Mancos and Fruitland formations. Soil surfaces within appropriate habitat can have a cover of gravel or cobbles ranging from 0% to 100%. Vegetative cover in SCME habitat is low, usually below 15%. SCME occurs in salt desert scrub communities and is commonly associated with mat saltbush (<i>Atriplex corrugata</i>) and Gardner's saltbush (<i>Atriplex gardneri</i>). Known populations occur between 4,600 feet to 6,560 feet (Hazelton 2012).</p>
<p><b>Potential to occur in the survey area: NONE</b></p> <p>No suitable habitat occurs in the survey area. The survey area is located within a drainage bottom and active/historic floodplain. Vegetation in the survey area is generally &gt;15% outside of disturbed areas. Associated species are not present. Soils are relatively deep and sandy and do not have the typical appearance of suitable adobe soils.</p> <p>Soils north of the survey area outside of the immediate Mancos River valley bottom may provide suitable habitat to support SCME.</p>
<p><b>Determination: NO EFFECT</b></p> <p>No suitable habitat would be impacted. Any nearby suitable habitat is far enough removed that it would not be indirectly impacted by project activities. No meaningful impacts to pollinator species are anticipated – impacts to vegetation that may support pollinators would be limited and impacted habitat is widespread and abundant along the Mancos River corridor. Access to the survey area would follow existing roads through potential SCME habitat. No new disturbance in SCME habitat is anticipated.</p>

\*FE = listed as Endangered by the Federal government, FT = listed as Threatened by the Federal government, C = Candidate Species. \*NONE indicates no habitat and/or outside of range of species; remote probability that species could occur in survey area is inconsiderable.

Bald and Golden Eagle habitat is limited in the survey area. No suitable Bald Eagle nest, roost, or perch habitat occurs along the Mancos River due to a lack of trees. Bald Eagles are unlikely to forage in the survey area or vicinity due to a lack of hunting perches and due to limited forage (no prairie dog colonies, limited fish stocks due to seasonal flows). No Golden Eagle nesting

habitat occurs nearby; the nearest potential nests sites are 12 miles east along the western rim of Golden Eagles may occasionally forage in the more open shrublands along the bottom of the Mancos River corridor, including the survey area. Proposed activities are unlikely to significantly alter Golden Eagle foraging behaviors given the limited scope and duration of the project relative to the widespread extent of adjacent similar habitat along the length of the Mancos River. To the best of our knowledge, no “take” as defined by the Bald and Golden Eagle Protection Act would result from the proposed activities in the Mancos River.

**(7) Compliance with Section 106 of the National Historic Preservation Act.**

The following information is provided in accordance with General Condition 20 (*Historic Properties*). Stratified Environmental & Archaeological Services, LLC (SEAS) contacted the Colorado Office of Archaeology and Historic Preservation (OAHP) to request a database search for the proposed project area and six sites have been previously documented within ¼ mile of the project area (see map and table provided within [Attachment 5](#)). A Class III pedestrian survey was conducted of the project area in November 2020 and the report is in process.

## **CLEAN WATER ACT SECTION 401**

### **Water Quality Certification**

The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time. Per §121.5 Certification Request of the “Clean Water Act (CWA) Section 401 Certification Rule” (85 Fed. Reg. 42,210), the following is to be included:

☒ (a) *A certification request shall be submitted to the certifying authority and to the Federal agency concurrently. Provided by email dated October 15, 2020.*

☒ (b) *A certification request for an individual license or permit shall:*

*(1) Identify the project proponent(s) and a point of contact; (2) Identify the proposed project; (3) Identify the applicable federal license or permit; (4) Identify the location and nature of any potential discharge that may result from the proposed project and the location of receiving waters; (5) Include a description of any methods and means proposed to monitor the discharge and the equipment or measures planned to treat, control, or manage the discharge; provided herein.*

*(6) Include a list of all other federal, interstate, tribal, state, territorial, or local agency authorizations required for the proposed project, including all approvals or denials already received; 401 Water Quality Certification from UMUT and Nationwide Permits 3 and 43 from USACE.*

*(7) Include documentation that a prefilings meeting request was submitted to the certifying authority at least 30 days prior to submitting the certification request; submitted via email dated October 15, 2020 (see [Attachment 6](#)).*

*(8) Contain the following statement: ‘The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief’; see signature of Permittee within CWA Section 404 section; and*

(9) *Contain the following statement: ‘The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.’; included herein.*

☒ (c) *A certification request for issuance of a general license or permit shall:*

*(1) Identify the project proponent(s) and a point of contact; (2) Identify the proposed categories of activities to be authorized by the general license or permit for which certification is requested; (3) Include the draft or proposed general license or permit; provided herein.*

*(4) Estimate the number of discharges expected to be authorized by the proposed general license or permit each year; current project results in approximately 31 CY of fill below the OWHM associated with burying the exposed pipeline and installation of the proposed revetment mat.*

*(5) Include documentation that a prefiling meeting request was submitted to the certifying authority at least 30 days prior to submitting the certification request; submitted via email dated October 15, 2020 (see Attachment 6).*

*(6) Contain the following statement: ‘The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief’; see signature of Permittee within CWA Section 404 section; and*

*(7) Contain the following statement: ‘The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.’; included herein.*

Per the above-referenced March 3, 2017 letter from the Ute Mountain Ute Tribe (UMUT), CWA Section 401 WQC has been denied for all Nationwide Permits. As stated in this letter, if UMUT does not provide a certification within 60 days from when UTUT receives the complete application, the general conditions and relevant Colorado Regional Conditions apply as the 401 certification conditions (Attachment 7). The following information is being provided to document compliance with these conditions:

*(1) A copy of the certification documentation must be on-site.*

To comply with this condition, the Permittee shall provide a copy of this letter, corresponding attachments, and any subsequent agency letters to the Contractor; the Contractor shall maintain a copy of these items on-site.

*(2) Certification is denied for all activities affecting fens, springs, hanging gardens and difficult to replace wetlands as defined in 33 CFR332(e)(3)..*

Project complies; project site does not contain fens, springs, hanging gardens or difficult to replace wetlands as defined in 33 CFR 332(e)(3).

*(3) All equipment must be inspected for fluid leaks and invasive species prior to use on a project. All fluid leaks shall be repaired and cleaned prior to use or when discovered, or if the fluid leak can't be repaired, the equipment shall not be used on site. Equipment used in waters with the possibility of aquatic nuisance species infestation must be thoroughly cleaned before they are used on the project.*

Project will be implemented to comply with this condition.

(4) *For all NWP, the Applicant must provide to the Tribal Environmental Program a certification application which includes the following:*

- i. *The information required in Corps of Engineers Nationwide Permits General Condition 32(b), 33 CFR( C)(32)(b ).”.*

All information is provided in the previous section.

- ii. *A summary of contacts/discussions with the affected Tribe’s water quality staff regarding the project.*

SME, NNOGC and UMUT (Mr. Colin Larrick) conducted a field investigation of the project area on September 15, 2020.

The “Clean Water Act Section 401 Certification Rule” became effective on September 11, 2020 which requires a pre-filing meeting request. By email dated October 15, 2020, Mr. Colin Larrick was contacted regarding the project by SME Environmental, Inc. on behalf of NNOGC; the USACE was included on this email correspondence. The purpose of the email was to submit a pre-filing meeting request in accordance with §121.4 of the new Clean Water Act Section 401 Certification Rule. In response to this request, a pre-filing meeting was held on November 10, 2020 with UMUT, USACE, SME, NNOGC and Sierra Oil Fields (Contractor) in attendance.

- iii. *A summary of tribally identified water quality concerns, if any.*

UMUT and USACE stated that there was concern with the installation of gabion baskets along the streambanks and inquired if the project could be implemented via boring or line lowering. In response, gabion baskets are no longer proposed as part of this project and a discussion regarding other alternatives, including boring and line lowering, is included in the avoidance/minimization sub-section of this letter (see Nationwide Permit section above). It is our understanding that Mr. Colin Larrick will review this documentation and provide any additional comments if he has concerns.

- iv. *A description of best management practices (BMPs) how the project will utilize construction BMPs to reduce or eliminate water quality degradation as a result of the project.*

Appropriate soil erosion and sediment controls will be maintained in effective operating condition during construction. Any exposed slopes will be stabilized immediately upon completion. The typical installation of proposed BMPs near aquatic resources are depicted on Figures 4d and 4e within Attachment 2.

Furthermore, contractors will not conduct fueling or lubricating of construction equipment or other motor vehicles within 100 ft of open water sources, or other wetland areas. Containment pans will be staged at the banks of waterways when equipment is operating, with spotters monitoring the status of vehicles. Major repairs to construction equipment will be performed offsite, where practicable.

The staging area will be located at an upland location with the four corners of the staging area demarcated in the field with t-posts. Vehicles will only be fueled in the staging area. There will

not be a storage fuel tank; instead, there will be pickup mounted fuel tanks. Containment pans will be used when fueling and when equipment is parked overnight.

- v. *A discussion of how the project has been designed to be resilient to the effects of climate change.*

According to a report prepared by the University of Colorado Boulder (2014), State-wide temperatures in Colorado are anticipated to increase by 2.5 to 5 degrees Fahrenheit by the year 2050. As a result of climate change, heat waves, droughts and wildfires are anticipated to increase in frequency and severity in Colorado. Further, the frequency and magnitude of extreme precipitation events are generally projected to increase.

According to the *Colorado Climate Change Vulnerability Study*, the climate impact that would most affect the oil/gas sector is extreme precipitation and flood events. Large flood events have the potential to cause stream incision, removing protective ground cover from the pipeline. The project has been designed so that the pipeline will have a minimum of two feet of cover and protection via concrete revetment mat. It is anticipated that this amount of cover, in combination with the revetment mat, will be sufficient during the life of the pipeline, even with increased flood events.

*(5) All Corps of Engineers Colorado Regional Conditions:*

Please see Attachment 8 for a copy of these conditions; project will be implemented to comply with all referenced Colorado Regional Conditions.

- (6) Any additional information submitted to the Corps, such as cultural resource reports or summaries, biological assessments for endangered species, drawings, maps, etc., must be included in the certification application.*

Request for Nationwide Permit and Water Quality Certification are being submitted concurrently with same document; all materials contained herein are provided to both agencies.

## **SUMMARY**

The purpose of the NNOGC Mancos Wash project is to address the potential hazard along the Running Horse Pipeline (RHP) where the existing pipeline crosses the Mancos River at MP 29.

The project would result in up to 0.01 acre of temporary impacts to aquatic resources for excavation of a trench and up to 0.01 acre of permanent impacts to aquatic resources to bury and protect an exposed section of pipeline. Areas of temporary disturbance will be restored to pre-construction elevations and re-vegetated, as appropriate, upon completion of construction activities.

We request verification from the USACE that the proposed project meets the terms and conditions of NWP 3 and NWP 43. We also request Individual CWA Section 401 WQC from the UMUT. Please contact us at (970) 259-9595 if you have any questions or require additional information. Thank you in advance for your attention to this matter.

Sincerely,

SME ENVIRONMENTAL, INC.

Kerrienne Zdimal, PWS  
Senior Regulatory Specialist

Encls.

cc: Mr. Troy Watson, Navajo Nation Oil and Gas (w/encls.)

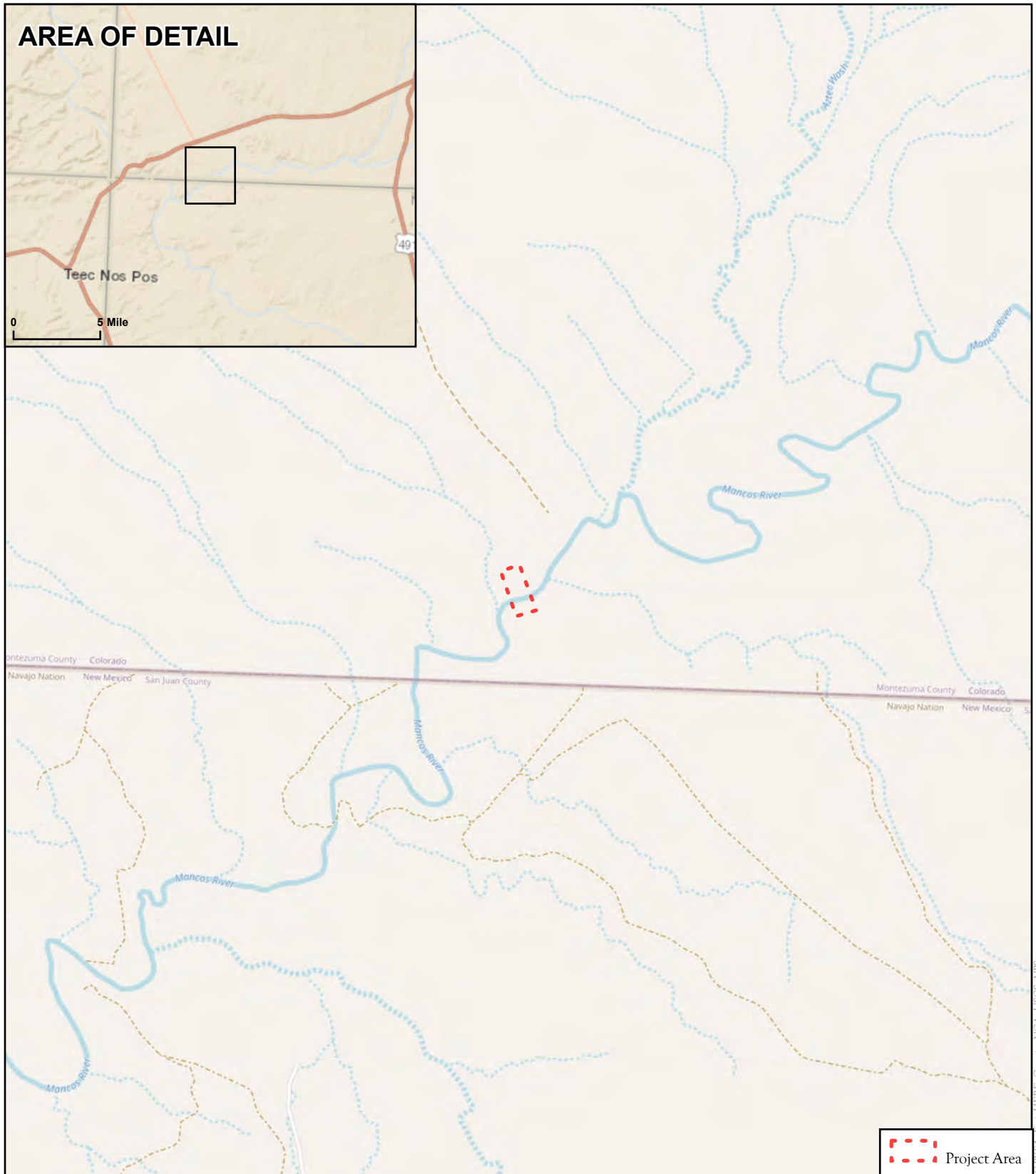
*S:\Projects\170049 Salvador NE Pipeline Upsize\404-401\PCN\_NWP 12\_BP Salvador NE Upsize Pipeline.doc*




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## **ATTACHMENT 1**

### **Figures**

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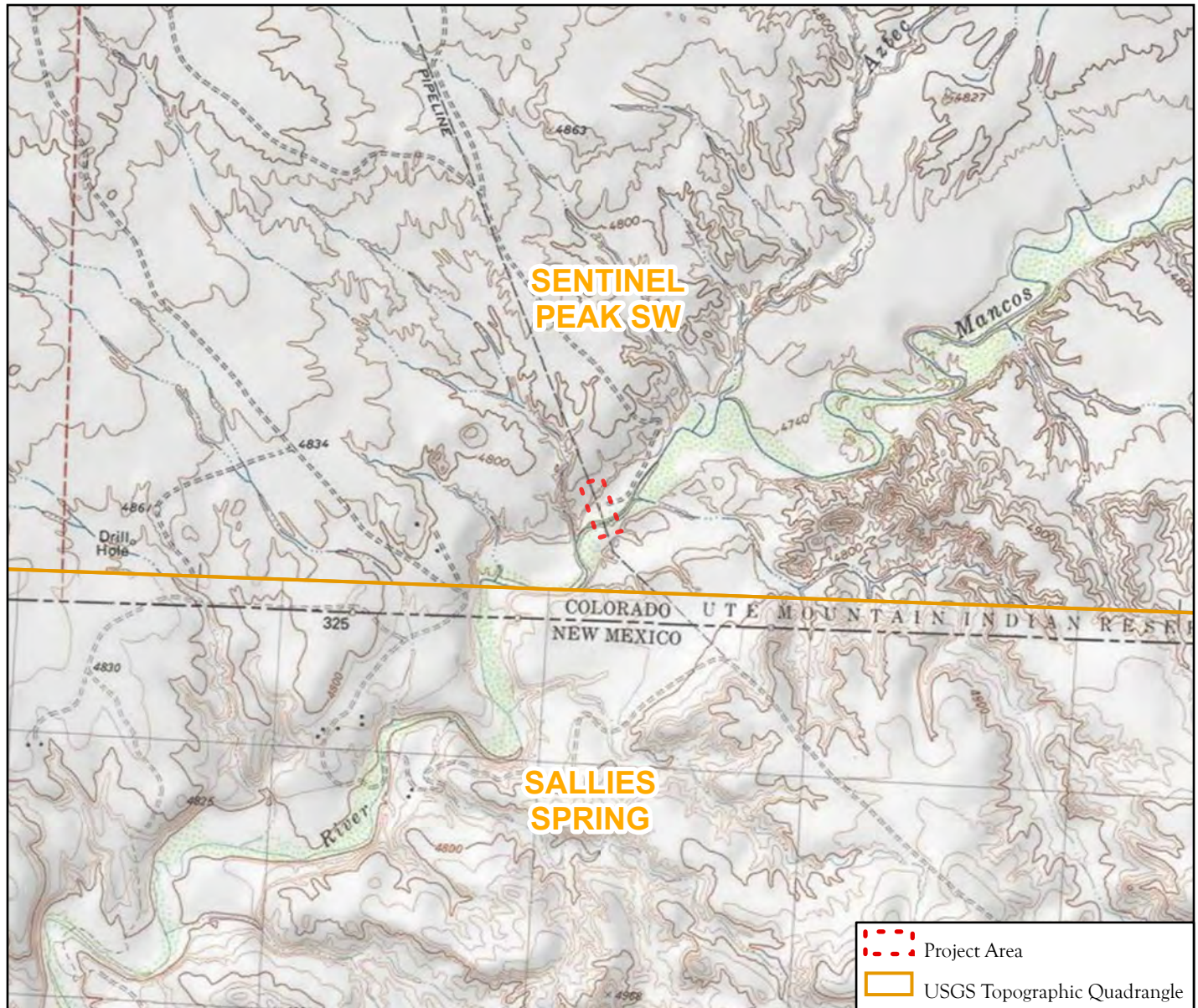
 ENVIRONMENTAL CONSULTANTS  679 East 2nd Ave. Unit E2, Durango, Colorado 81301 www.sme-env.com (970) 259-9595	Drawn by:	Rvwd. by:	Project No.:	ROAD VICINITY MAP	
	KB	KZ	200037		
	Date:	Rsvd. Date:	Scale:	NATIONWIDE PERMIT 3 & 43 401 WATER QUALITY CERTIFICATION RHP MANCOS WASH CROSSING MP 29 MONTEZUMA COUNTY, CO	
	12/1/2020	NA	1:24,000		
	 0      1,000      2,000  Feet			FIGURE  1	

**PROJECT LOCATION:**


Township 32 North, Range 19 West, NESW of Section 20;  
New Mexico Principal Meridian  
Montezuma County, Colorado.

**PROJECT AREA CENTROID (NAD 1983):**

Latitude: 37.0028375°  
Longitude: -108.9420583°



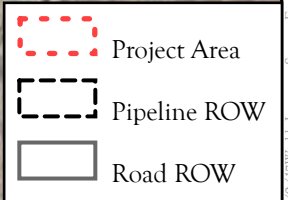
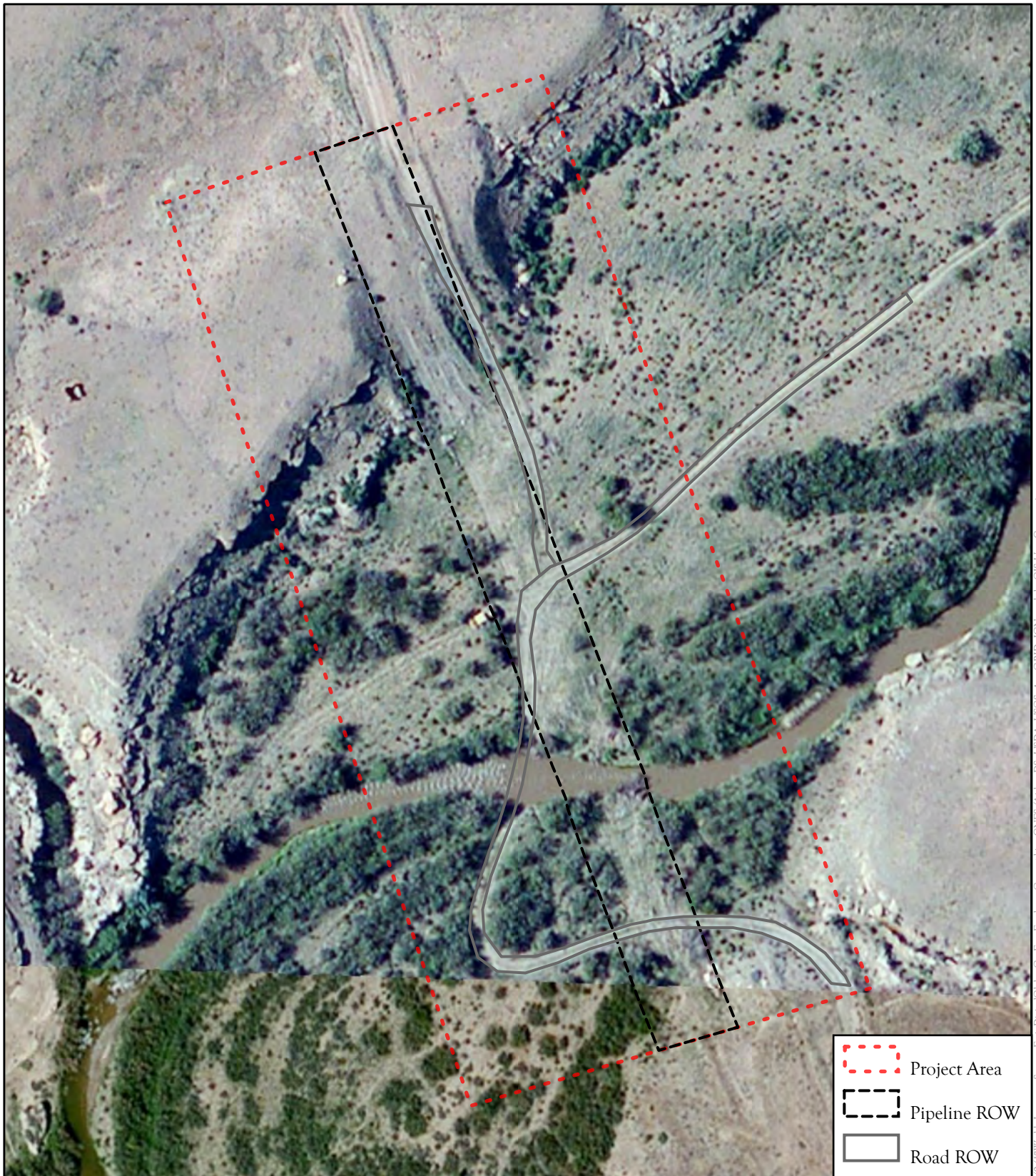
679 East 2nd Ave. Unit E2, Durango, Colorado 81301  
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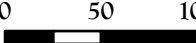
Drawn by:	Rvwd. by:	Project No.:
KB	KZ	200037
Date:	Rsvd. Date:	Scale:
12/1/2020	NA	1:24,000
 0 1,000 2,000 Feet		

**TOPOGRAPHIC LOCATION MAP**

NATIONWIDE PERMIT 3 & 43  
401 WATER QUALITY  
CERTIFICATION  
RHP MANCOS WASH CROSSING MP 29  
MONTEZUMA COUNTY, CO

**FIGURE**  
**2**



 <p><b>SME</b> ENVIRONMENTAL CONSULTANTS</p> <p>679 East 2nd Ave. Unit E2, Durango, Colorado 81301 www.sme-env.com (970) 259-9595</p>	Drawn by:	Rvwd. by:	Project No.:	<b>AERIAL LOCATION MAP</b>		<b>FIGURE</b>  <b>3</b>
	KB	KZ	200037			
	Date:	Rsvd. Date:	Scale:	NATIONWIDE PERMIT 3 & 43 401 WATER QUALITY CERTIFICATION RHP MANCOS WASH CROSSING MP 29 MONTEZUMA COUNTY, CO		
	12/1/2020	NA	1:1,200			
	 					



AQUATIC RESOURCES TEMPORARY IMPACTS TABLE							
Impact Area	Aqu. Res. Area	Aqu. Res. Type	Acres	Square Ft.	Linear Ft.	Centroid Y	Centroid X
T1	A	R3UBH	<0.01	138	6	37.00249	-108.94180
TOTAL			<0.01	138	6		

AQUATIC RESOURCES PERMANENT IMPACTS TABLE							
Impact Area	Aqu. Res. Area	Aqu. Res. Type	Acres	Square Ft.	Linear Ft.	Centroid Y	Centroid X
P1	A	R3UBH	0.01	286	12	37.00250	-108.94183
TOTAL			0.01	286	12		

GENERAL NOTES

1. Survey area boundary created by SME, based on plan sheets provided by Navajo Nation Oil and Gas Company.

2. Wetlands and other Waters of the U.S. (WOUS) in the survey area were identified by SME Environmental, Inc. (SME) on October 1, 2020 using the methodology defined in the Routine Determination procedure set forth in the U.S. Army Corps of Engineers Wetlands Delineation Manual (USACE 1987) and the Regional Supplement: Arid West Region (Version 2.0). Wetland boundaries were defined based on the presence of hydrophytic vegetation, hydric soils, and hydrologic indicators that under normal conditions would indicate wetland conditions. Additionally, SME surveyed for the presence of an ordinary high water mark (OHWM) in accordance with the Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008) and Regulatory Guidance Letter No. 05-05 Guidance on Ordinary High Water Mark Identification (USACE 2005).

3. Wetland boundaries were defined based on presence of hydrophytic vegetation, hydric soils, and hydrologic indicators that under normal conditions would indicate wetland conditions. Additionally, SME surveyed for the presence of an ordinary high water mark (OHWM) in accordance with the Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008) and Regulatory Guidance Letter No. 05-05 Guidance

on Ordinary High Water Mark Identification (USACE 2005).


4. The boundaries of WOUS were survey-located using an Eos Positioning Systems Arrow 100 GNSS Receiver (real-time sub-meter accuracy).

5. Areas which likely satisfy the USACE criteria as WOUS are labeled. Note that WOUS continue beyond the survey area boundary.

6. All WOUS boundaries, depicted hereon, are subject to modification until jurisdictional verification has been completed the USACE.

7. Aquatic resource impact table represents acreages, square feet, linear footages and centroid locations (NAD83 State Plane) for temporary and permanent impacts proposed under Nationwide Permits 3 and 43. 8. Aquatic resources delineation table represents acreages, linear footage, square footage and centroid locations.

8. Please be aware that impacts to wetlands and other WOUS may require authorization from Local, State and/or Federal regulatory agencies. The limits of impacts to jurisdictional wetlands and other WOUS shown hereon are based upon current development plans and renderings for submission to the USACE for Nationwide Permits 3 and 43 requests. Ancillary improvement types, layouts, and proposed uses may vary somewhat as long as the nature and scope of impacts to wetlands and other WOUS is not changed.



**SME**  
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PRELIMINARY: NOT FOR CONSTRUCTION  
OR RECORDING

**AQUATIC RESOURCES IMPACTS MAP**  
NATIONWIDE PERMIT 3 & 43  
401 WATER QUALITY  
CERTIFICATION  
RHP MANCOS WASH CROSSING MP 29  
MONTEZUMA COUNTY, CO

**Aquatic Resources Impacts**

Temporary

Permanent

**Aquatic Resources**

R3UBH (Mancos River)

**Other Features**

Running Horse Pipeline

Running Horse Exposed Pipe (15')

Excavated Section of Pipe (35')


Pipeline ROW

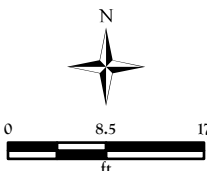
Revetment Mat (34'x12')

Excavation (3'x8'x35')

Road ROW

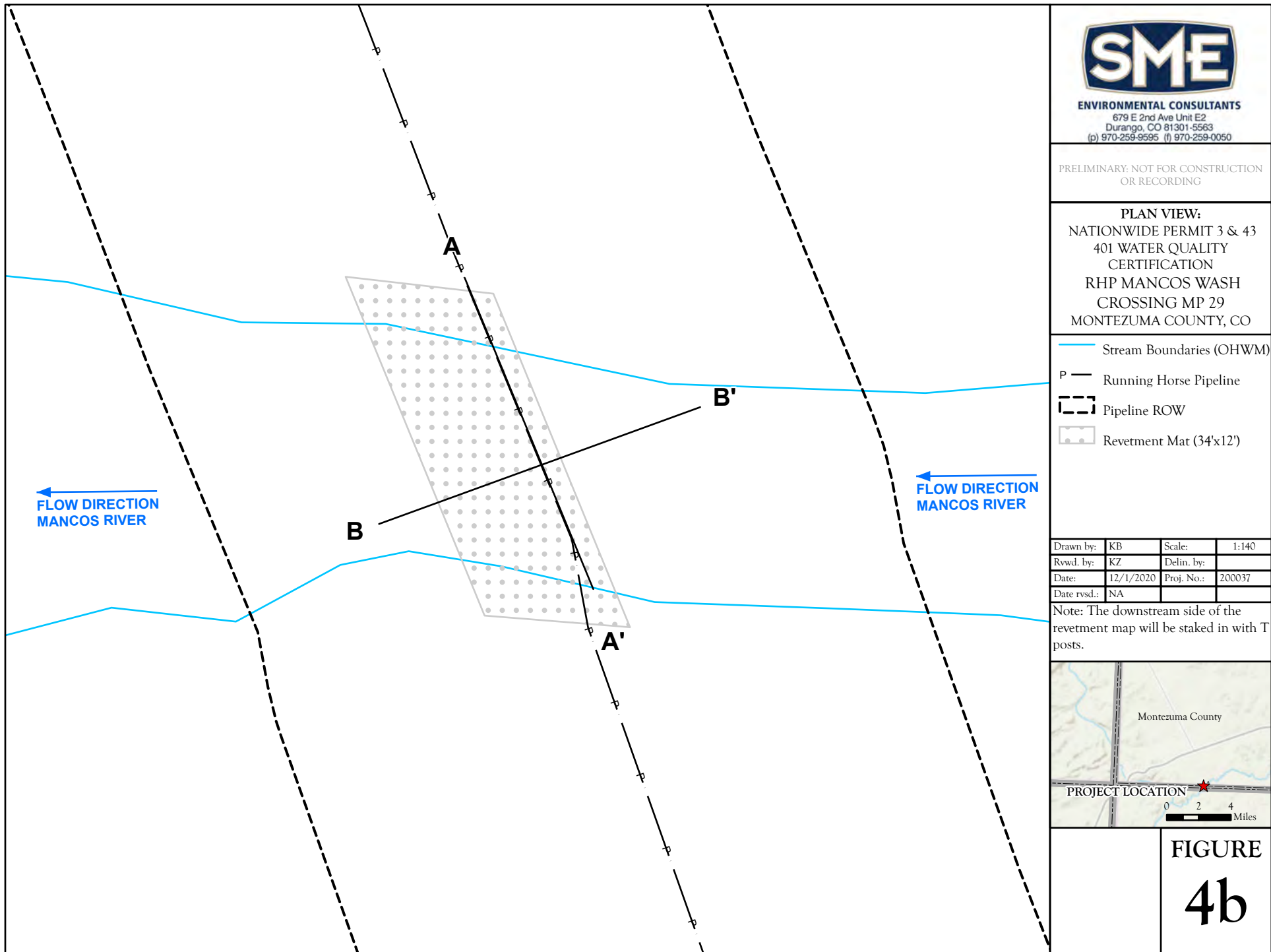
Drawn by:	KB	Date drawn:	12/1/2020
Rvwd. by:	KZ	Date rvsd.:	
Proj. No.:	200037	Scale:	1:200





**FIGURE**  
**4a**

Sources: Google Earth Imagery (acquired 9/9/17), Esri, HERE, Garmin, FAO, USGS, NOAA, EPA, NPS, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community








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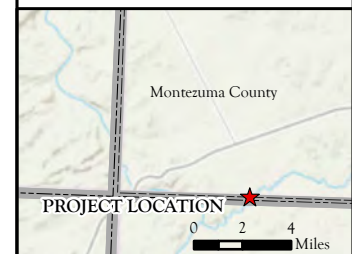
PRELIMINARY: NOT FOR CONSTRUCTION  
 OR RECORDING

**GENERALIZED CROSS SECTION  
 AND PROFILE:**  
 NATIONWIDE PERMIT 3 & 43  
 401 WATER QUALITY  
 CERTIFICATION  
 RHP MANCOS WASH  
 CROSSING MP 29  
 MONTEZUMA COUNTY, CO

-  Revetment Mat
-  Existing Grade
-  Existing Pipeline

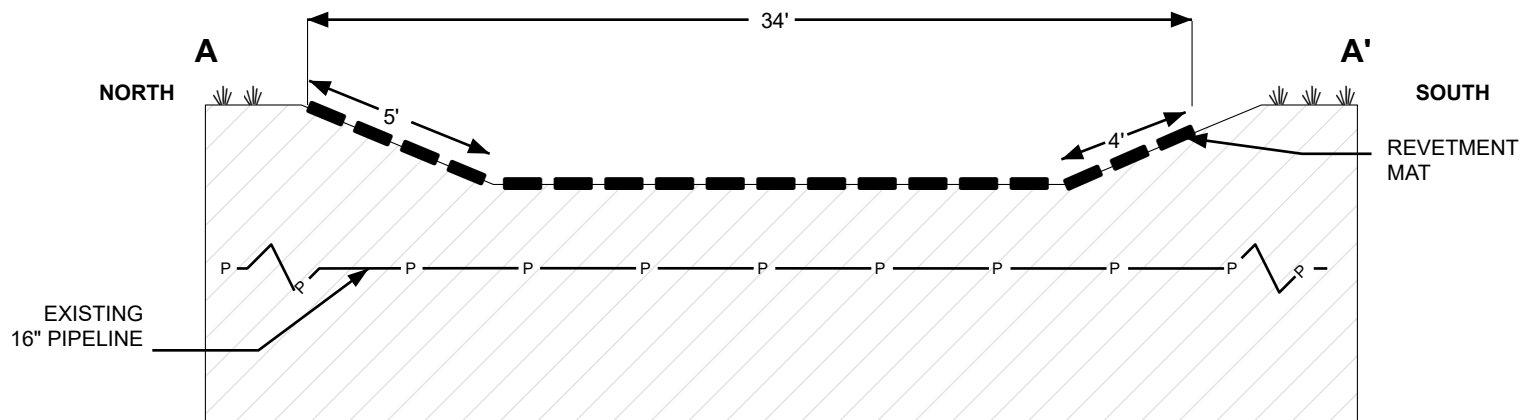
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Date:	12/1/2020	Proj. No.:	200037
Date rvsd.:	NA		

Note: The downstream side of the  
 revetment map will be staked in with T  
 posts.

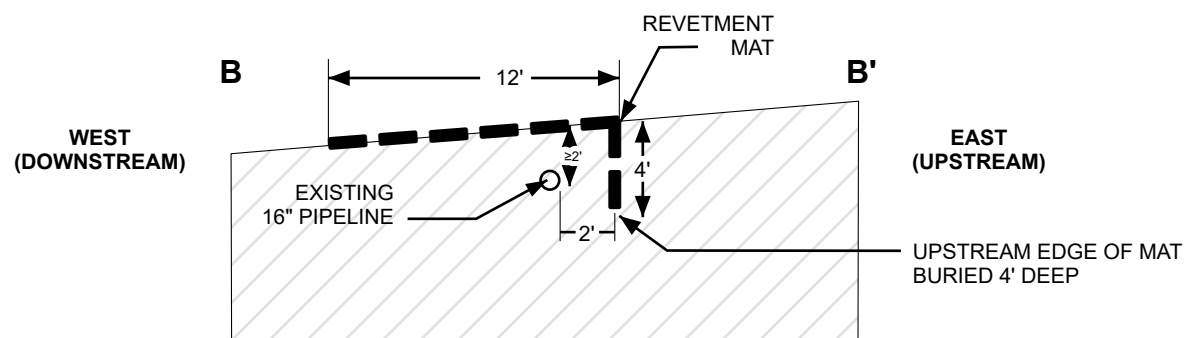


**FIGURE**

**4c**

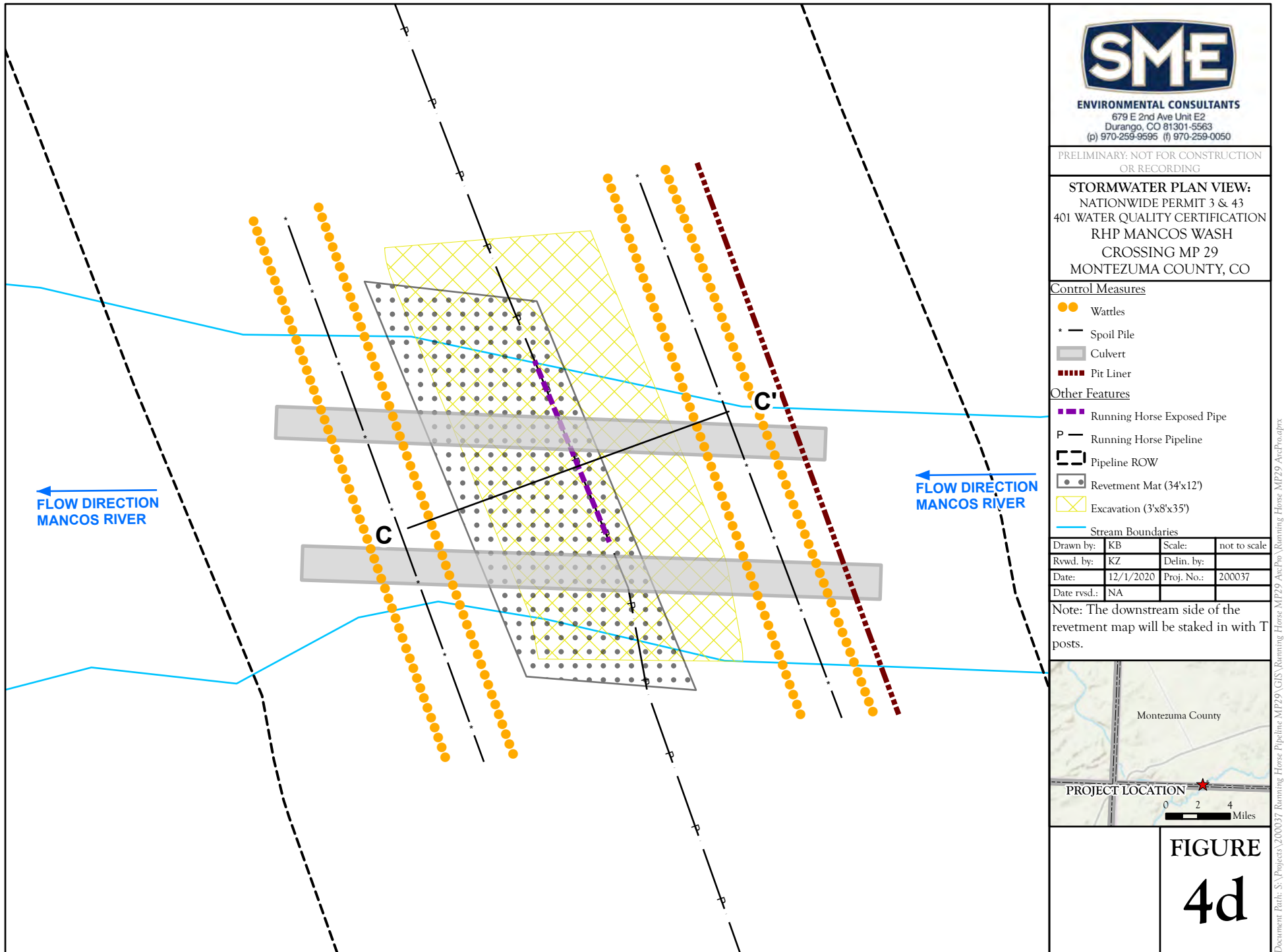


**CROSS SECTIONAL VIEW  
 A - A'**



**PROFILE VIEW  
 B - B'**

\*\*not to scale\*\*












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Durango, CO 81301-5563  
(p) 970-259-9595 (f) 970-259-0050

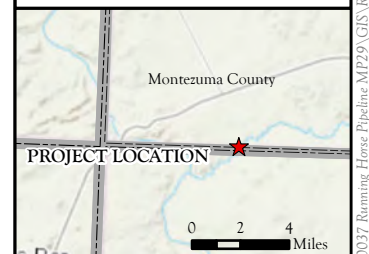
PRELIMINARY: NOT FOR CONSTRUCTION  
OR RECORDING

**STORMWATER PROFILE VIEW:**  
NATIONWIDE PERMIT 3 & 43  
401 WATER QUALITY CERTIFICATION  
RHP MANCOS WASH  
CROSSING MP 29  
MONTEZUMA COUNTY, CO

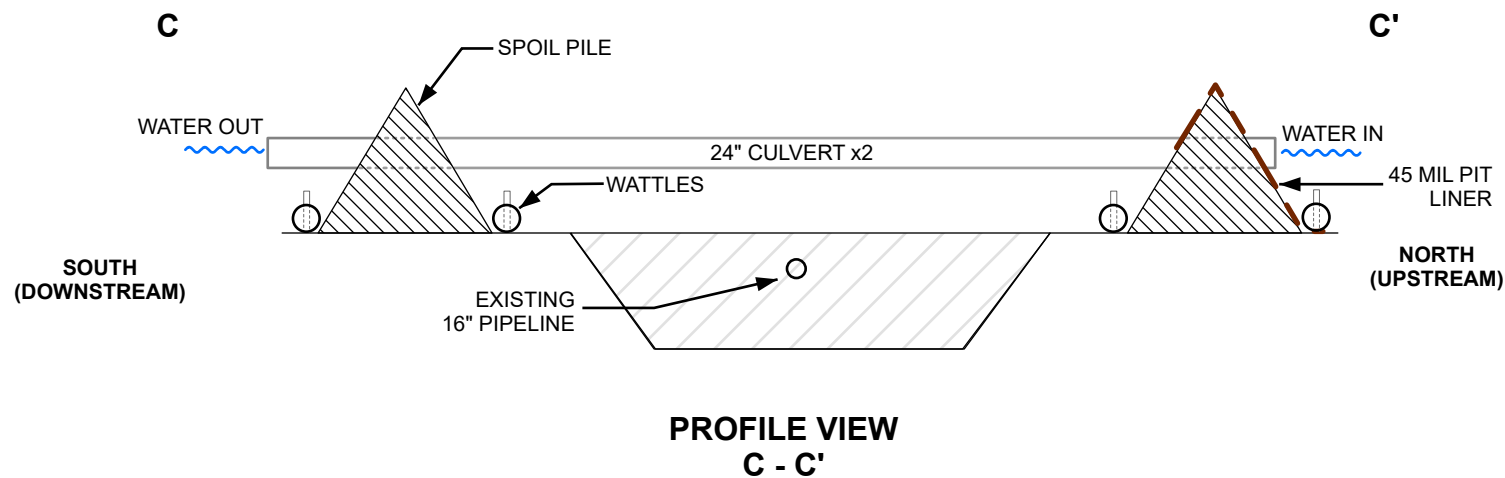
-  Existing Grade
-  Repair Sleeve
-  Existing Pipeline
-  Spoil Pile
-  Wattle
-  Culvert
-  45 mil Pit Liner

Drawn by:	KB	Scale:	not to scale
Rvw'd. by:	KZ	Delin. by:	
Date:	12/1/2020	Proj. No.:	190058
Date rvsd.:	NA		

This design only to be utilized while water is flowing.

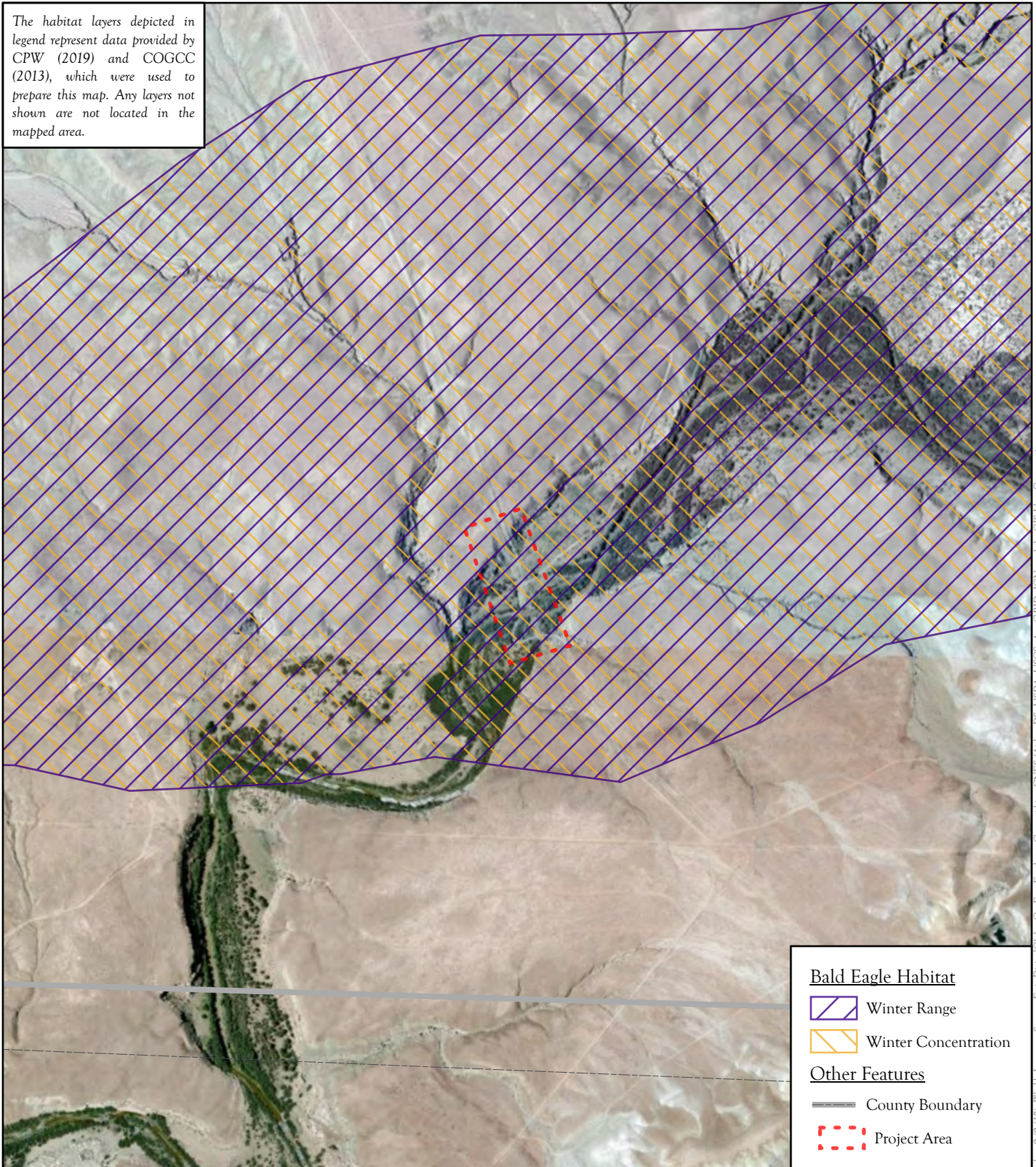


**FIGURE**  
**4e**





**\*\*not to scale\*\***

The habitat layers depicted in legend represent data provided by CPW (2019) and COGCC (2013), which were used to prepare this map. Any layers not shown are not located in the mapped area.



#### Bald Eagle Habitat


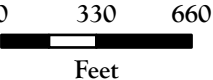
-  Winter Range
-  Winter Concentration

#### Other Features

-  County Boundary
-  Project Area



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Drawn by:	Rvwd. by:	Project No.:
KB	KZ	200037
Date:	Date rvsd.:	Scale:
12/1/2020		1:8,000
 		

#### BALD & GOLDEN EAGLE HABITAT MAP

NATIONWIDE PERMIT 3 & 43  
401 WATER QUALITY  
CERTIFICATION  
RHP MANCOS WASH CROSSING MP 29  
MONTEZUMA COUNTY, CO

**FIGURE**  
**5**

---

## **ATTACHMENT 2**

### **Aquatic Resources Delineation Report**

---

# **Aquatic Resources Delineation Report**

## **Running Horse Pipeline MP 29 Mancos Wash**

### **Montezuma County, CO**



**Prepared for:**



**Navajo Nation Oil and Gas Company**  
50 Narbono Circle West  
St. Michaels, Arizona 86511

**Prepared by:**



**ENVIRONMENTAL CONSULTANTS**  
679 East 2nd Avenue, Unit E2  
Durango, Colorado 81301

**December 2020**

## EXECUTIVE SUMMARY

Wetlands and other Waters of the U.S. (WOUS) in the survey area were identified by SME Environmental, Inc. (SME) on October 1, 2020 using the methodology defined in the Routine Determination procedure set forth in the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (USACE 1987) and *the Regional Supplement: Arid West Region (Version 2.0)*. Wetland boundaries were defined based on presence of hydrophytic vegetation, hydric soils, and hydrologic indicators that under normal conditions would indicate wetland conditions. Additionally, SME surveyed for the presence an ordinary high water mark (OHWM) in accordance with the *Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008) and *Regulatory Guidance Letter No. 05-05 Guidance on Ordinary High Water Mark Identification* (USACE 2005).

The Running Horse Pipeline Exposure MP 29 project survey area is approximately 4.78 acres. Based on the site investigation, approximately 0.19 acres (8,064 sq. feet) of aquatic resources exist in the survey area. The survey area is located approximately 2 miles south of the intersection of State Highway 41 (SH 41) and U.S. Highway 160 (US 160) in Montezuma County Colorado. More specifically, the survey area is located along Indian Route 232 where it crosses the Mancos River. The survey area is also located on Ute Mountain Ute Tribe Lands. SME prepared this report for the Navajo Nation Oil and Gas Company (NNOGC) to document the boundaries of aquatic resources within the survey area of the Running Horse Pipeline Exposure MP 29 project.

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## ACRONYMS AND ABBREVIATIONS

HUC	Hydrologic Unit Code
NAD	North American Datum
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
NWPL	National Wetland Plant List
OHWM	Ordinary high water mark
R3UBH	Riverine Perennial Unconsolidated Bottom Permanently Flooded
RPW	Relatively Permanent Water
SH 41	State Highway 41
SME	SME Environmental, Inc.
TNW	Traditional Navigable Water
US 160	U.S. Highway 160
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
USFWS	U.S. Fish and Wildlife Service

## 1.0 INTRODUCTION

**Project Name:** Running Horse Pipeline Exposure MP 29

**USACE File #:** SPK-2020-00866

**SME #:** 200037

**Applicant:**

Navajo Nation Oil and Gas Company

50 Narbono Circle West

St. Michaels, AZ 86511

Contact: Mr. Troy Watson, Pipeline Engineer

Phone: (505) 599 6060; Email: TWatson@nnogc.com

**Agent/Consultant:**

SME Environmental, Inc. (SME)

679 East 2nd Avenue, Unit E2, Durango, CO 81301

Contact: Mr. Sean Moore, Principal; Email: smoore@sme-env.com

Phone: (970) 259-9595; Fax: (970) 259-0050

**Survey Area Description:** The area surveyed by SME in support of the project is located approximately 2 miles south of the intersection of State Highway 41 (SH 41) and U.S. Highway 160 (US 160) in Montezuma County Colorado. More specifically, the survey area is located along Indian Route 232 where it crosses the Mancos River. Total size of the survey area is approximately 4.78 acres.

**Purpose:** The purpose of this report is to identify and describe aquatic resources within the survey area for due diligence with Clean Water Act Section 404 and 401 compliance.

## 2.0 PROJECT LOCATION

**Municipality:** N/A; **County:** Montezuma County; **State:** Colorado; **Street Address:** N/A.

**Section, Township, Range (New Mexico Principal Meridian):** Section 20, Township 32 North, Range 19 West

**Lat/Long:** survey area centroid approximately latitude 37.002843° and longitude -108.94204° (NAD 83).

**USGS Quad Name:** Sentinel Peak SW, Colo.

**Directions:** The survey area is located 2 miles south of the intersection of State Highway 41 (SH 41) and U.S. Highway 160 (US 160) in Montezuma County Colorado. More specifically, the survey area is located along Indian Route 232 where it crosses the Mancos River. From Cortez, take US-160 W/S for approximately 20 miles and then turn right to stay on US-160 W. Stay on US 160 W for approximately 13 miles to Indian Route 232, just before the intersection of US 160 and SH 41. Turn left onto Indian Route 232 and take the road for approximately 2.3 miles before

reaching the survey area. The survey area and highways are depicted on [Figure B1](#) and a topographic map is provided as [Figure B2](#).

### 3.0 DELINEATION METHODS

Aquatic resources in the survey area were identified on October 1, 2020 by SME staff using the methodology defined in the Routine Determination procedure set forth in the *1987 U.S. Army Corps of Engineers Wetlands Delineation Manual* (USACE 1987), the *Regional Supplement to the USACE Wetland Delineation Manual: Arid West Region* (USACE 2008), *Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008), and *Regulatory Guidance Letter No. 05-05 Guidance on Ordinary High Water Mark Identification* (USACE 2005). Wetland boundaries were defined based on presence of hydrophytic vegetation, hydric soils, and hydrologic indicators that under normal conditions would indicate wetland conditions. In the absence of wetland conditions, the extent of aquatic resources was determined based on the lateral extent of the OHWM.

Prior to conducting the field survey, SME conducted a desktop survey of available publications covering the survey area including U.S. Geological Survey (USGS) 7.5' topographic quadrangles, U.S. Fish and Wildlife (USFWS) National Wetlands Inventory (NWI) data, U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soils data, and *USDA FSA NAIP* aerial imagery. The boundaries of aquatic resources where survey permission was granted at the time of survey were survey-located using an Eos Positioning Systems Arrow 100 GNSS Receiver (real-time sub-meter accuracy) and are depicted on [Figure A](#).

Photo point locations labeled as PP1, PP2, etc. on [Figure A](#) correspond to the photos provided in [Appendix C](#). Wetland Determination Data forms for the Arid West Region are included with this report as [Appendix E](#). Data point/Soil Boring locations have been labeled as DP1 (Data point 1), DP2 etc., on [Figure A](#).

### 4.0 EXISTING CONDITIONS

#### 4.1 Landscape Setting

**Size of Survey Area:** Approximately 4.78 acres.

**Watershed Name and Size (HUC 8):** Mancos, HUC 14080107, 795 square miles.

**Elevation Range of Site:** Approximately 4,730 to 4,780 feet above mean sea level (msl) ([Figure B2](#)).

**Geographic Setting:** The survey area is located within the Ute Mountain Ute Reservation, southwest of Cortez, CO, about five to six miles from the Four Corners. The Mancos River flows west through the center of the survey area before heading southwest where it meets with the San Juan River near the Four Corners. The Mancos River is mapped as a perennial waterway on the USGS Sentinel Creek SW, Colo. 7.5-minute Topographic Quadrangle 1:24,000, Colorado map.

**Land Use:** The survey area is located within Ute Mountain Ute Tribal lands. The Mancos River runs west through the center of the survey area and several washes (including the Aztec Wash) flow to the Mancos River within the vicinity of the survey area. The survey area itself and the surrounding area is almost entirely undeveloped, with the exception of the pipeline access roads/tribal roads and pipeline right-of-ways.

**Precipitation:** According the U.S. Drought Monitor, Montezuma County was in extreme drought at the time of the October site visit (USDA, September 29 and October 6, 2020). Average annual precipitation near Mesa Verde, CO is 18.00 inches/year (WRCC-Mesa Verde). The average precipitation during the month of September is 1.63 inches. In the month of September preceding the October 1, 2020 field survey, the area received 0.51 inches of precipitation, indicating below normal conditions at the time of survey. (The Weather Channel- Mesa Verde). However, there was a large storm even that occurred prior to field work, which deposited large amounts of sediment within the channel of the Mancos River.

**Existing Field Conditions:** The field survey was conducted just after/at the very end of the 2020 growing season while vegetation was no longer mature. At the time of the October 2020 site visit, the Mancos River did not have any flowing water.

## 4.2 Aquatic Resources

The only aquatic resource within the survey area is the Mancos River, which flows west through the center of the survey area (Area A). Please note that some delineated aquatic resources may extend beyond the limits of the survey area; however, only the portions of aquatic resources within the survey area were delineated. Table 1 below lists the acreage of the aquatic resource areas classified in accordance with the Cowardin Classification System for wetlands and deepwater habitats (Cowardin et al. 1979). The boundaries of aquatic resources are depicted on Figure A. Table 2 provides a breakdown of aquatic resources as evaluated for due diligence with Clean Water Act Section 404.

**Table 1. Cowardin Classification, Acreage, and Linear Footage of Aquatic Resources within the Survey Area.**

Waters of the U.S.	Square Feet	Acres	Linear Feet
Mancos River (R3UBH)	8,064	0.19	305
<b>TOTAL</b>	<b>8,064</b>	<b>0.19</b>	<b>305</b>

**Table 2. Characteristics of Aquatic Resources within the Survey Area.**

Name	Flow Frequency	Flows to	Rationale
Mancos River (Area A)	Perennial	San Juan River	Ordinary High Water Mark (OHWM)

## 4.3 Vegetation

No wetlands were present within the survey area. Upland areas (that did not meet the three parameters) outside of the Mancos River channel were dominated by rubber rabbitbrush (*Ericameria nauseosa*), Russian knapweed (*Rhaponticum repens*), Tamarisk sp. (*Tamarix* sp.), and fourwing saltbush (*Atriplex canescens*). Vegetation within the Mancos River channel and

surrounding uplands were dominated by Tamarisk sp., Common Reed (*Phragmites australis*) and Rough Cocklebur (*Xanthium strumarium*). [Appendix D](#) provides a list of dominant plant species observed during the field investigation. Wetland Determination Data forms for the Arid West Region are included with this report as [Appendix E](#) and include detailed information about the vegetation observed at each data point location.

#### **4.4 Soils**

Soil data for the survey area was obtained from the USDA NRCS. A soil map is included as [Figure B3](#). The survey area crosses two soil map units; a description of these units is derived from the USDA NRCS Soil Reports and is provided in [Appendix F](#).

The survey area is located within the mapped *Blackston-Camac-Rock outcrop complex 0-60% slopes* and *Jeddito-Escavada association 0-3% slopes* soil units. None of the mapped soil units are considered hydric based off of major or minor components in the map unit (State Soil Data Access Hydric Soils List, NRCS 2020). Data collected from soil transects during the field investigation revealed silty soils. As there were no wetlands present within the survey area, no primary hydric soil indicators were observed. Data from specific soil borings is presented on the data sheets in [Appendix E](#).

#### **4.5 Hydrology**

The Mancos River flows west through the center of the survey area and is mapped as a perennial stream (solid blue line) on the Sentinel Peak SW, Colo USGS 7.5-minute topographic quadrangle map. The Mancos River is fed by the surrounding washes and tributaries as well as precipitation and groundwater. No wetlands are located within the survey area and therefore no indicators of hydrology (outside of the OHWM of the Mancos River) were observed.

#### **4.6 Interstate Commerce**

The Mancos River, which flows west through the center of the survey area, flows to the San Juan River, which is considered a Relatively Permanent Water (RPW). The term RPW is taken from the *USACE Jurisdictional Determination Form Instructional Guidebook* (2007) and implies a tributary with whose flow is year-round flow (or seasonally continuous) and that discharges directly or indirectly into a Traditional Navigable Water (TNW). The San Juan River eventually flows to the Colorado River in Utah. The USACE Sacramento District identifies the Colorado River from the mouth of Castle Creek to Cataract Canyon (4.5 miles below mouth of Green River) as a TNW.

#### **4.7 Limitations**

Field indicators can change with variations in hydrology and other factors. This report assesses the potential for aquatic resources at the site at the time of our review and does not address conditions at a given time in the future. Accordingly, on behalf of our client, SME reserves the right to revisit the jurisdictional status of boundaries of aquatic resources as presented herein, should any of this information warrant modifications. We make no other warranties, either expressed or implied, and our report is not a recommendation to buy, sell or develop the property. This report does not constitute a Jurisdictional Determination of Waters of the United States since

such determinations must be verified by the USACE or the NRCS (as applicable) and are subject to review by the U.S. Environmental Protection Agency (USEPA).

## 5.0 REFERENCES – General and Cited

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USGS. 2019. Sentinel Peak SW Quadrangle Colorado-Montezuma Co. 7.5' series. Available at: <https://catalog.data.gov/dataset/usgs-us-topo-7-5-minute-map-for-sentinel-peak-sw-co-2019>

Weather Channel. 2020. Monthly Weather for Mesa Verde, CO. Available at: <https://weather.com/weather/monthly/1/1e61e177a7322f0ec2b33dfd06ba7248e4c14bdac78e2dba3786b7205d1d10d0>

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*S:\Projects\200037 Running Horse Pipeline MP29\WD\AquaticResourcesReport\_RunningHorseMP29\_200037.docx*

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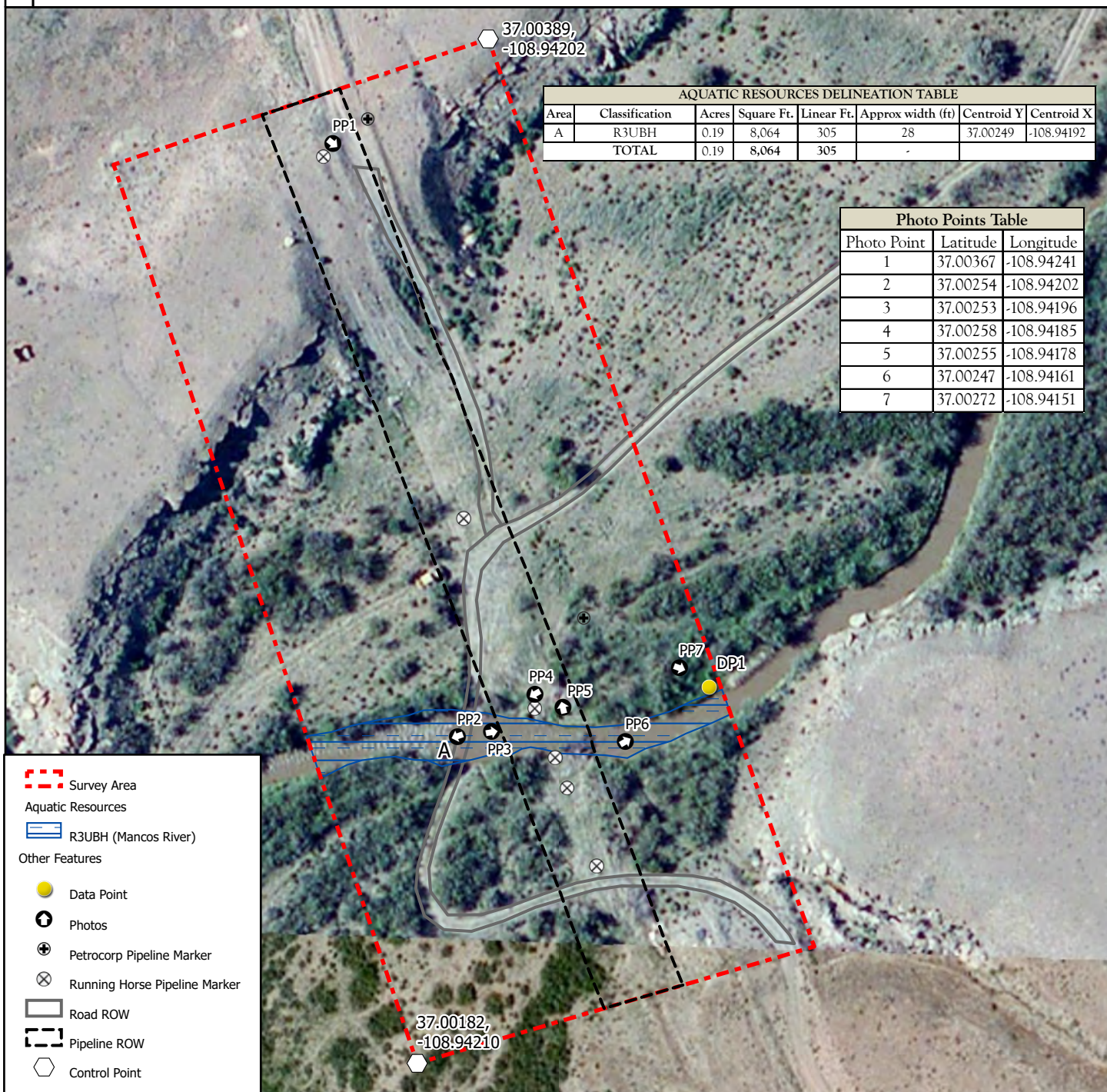
## **APPENDIX A**


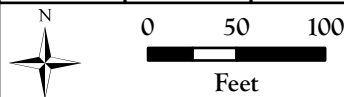
### **Aquatic Resource Delineation Maps**

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# GENERAL NOTES

1. Survey area and pipeline ROW boundaries created by SME, based on data provided by the Navajo Nation Oil and Gas Company (NNOGC). The Running Horse Pipeline and Exposed Pipeline shapefiles were provided to SME by NNOGC.
2. SME Environmental, Inc. (SME) staff visited the site on October 1, 2020 to assess and delineate the boundaries of wetlands and other Waters of the U.S. (WOUS) in the area of interest using the methodology defined in the Routine Determination procedure set forth in the U.S. Army Corps of Engineers Wetlands Delineation Manual (USACE 1987), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2010) and the Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008).
3. Wetland boundaries were defined based on presence of hydrophytic vegetation, hydric soils, and hydrologic indicators that under normal conditions would indicate wetland conditions. Where wetland conditions did not occur adjacent to surface water, the jurisdictional boundary was identified based on evidence of the OHWM.
4. The boundaries of WOUS were survey-located using the Eos Positioning Systems Arrow 100 GNSS Receiver (real-time sub-meter accuracy).
5. Areas which likely satisfy the USACE criteria as WOUS are labeled. Note that WOUS continue beyond the survey area boundary.
6. All WOUS boundaries, depicted hereon, are subject to modification until jurisdictional verification has been completed the USACE.
7. Please be aware that impacts to WOUS may require authorization from Local, State and/or Federal regulatory agencies.
8. Aquatic resources delineation table represents acreages, linear footage, square footage and centroid locations.



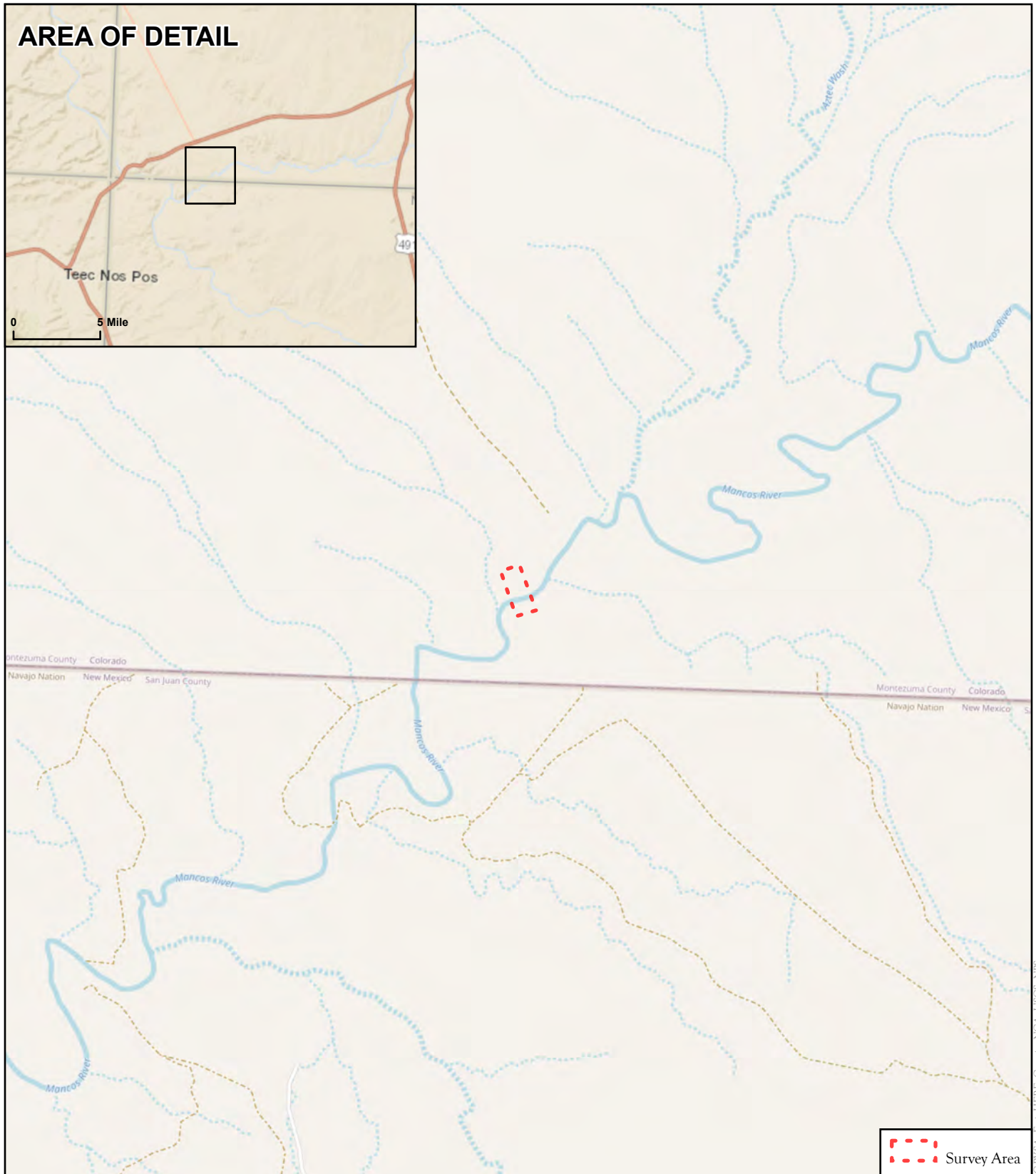
 <p><b>SME</b> ENVIRONMENTAL CONSULTANTS</p> <p>679 East 2nd Ave. Unit E2, Durango, Colorado 81301 www.sme-env.com (970) 259-9595</p>	Drawn by:	Rvwd. by:	Project No.:	AQUATIC RESOURCES DELINEATION MAP	
	SKB	KZ	200037		
	Date:	Rsvd. Date:	Scale:	AQUATIC RESOURCES DELINEATION REPORT RHP MANCOS WASH CROSSING MP 29 MONTEZUMA COUNTY, CO	
	12/1/2020	NA	1:1,300		
			<p><b>FIGURE</b> <b>A</b></p>		



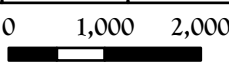
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## **APPENDIX B**

### **Supporting Maps**

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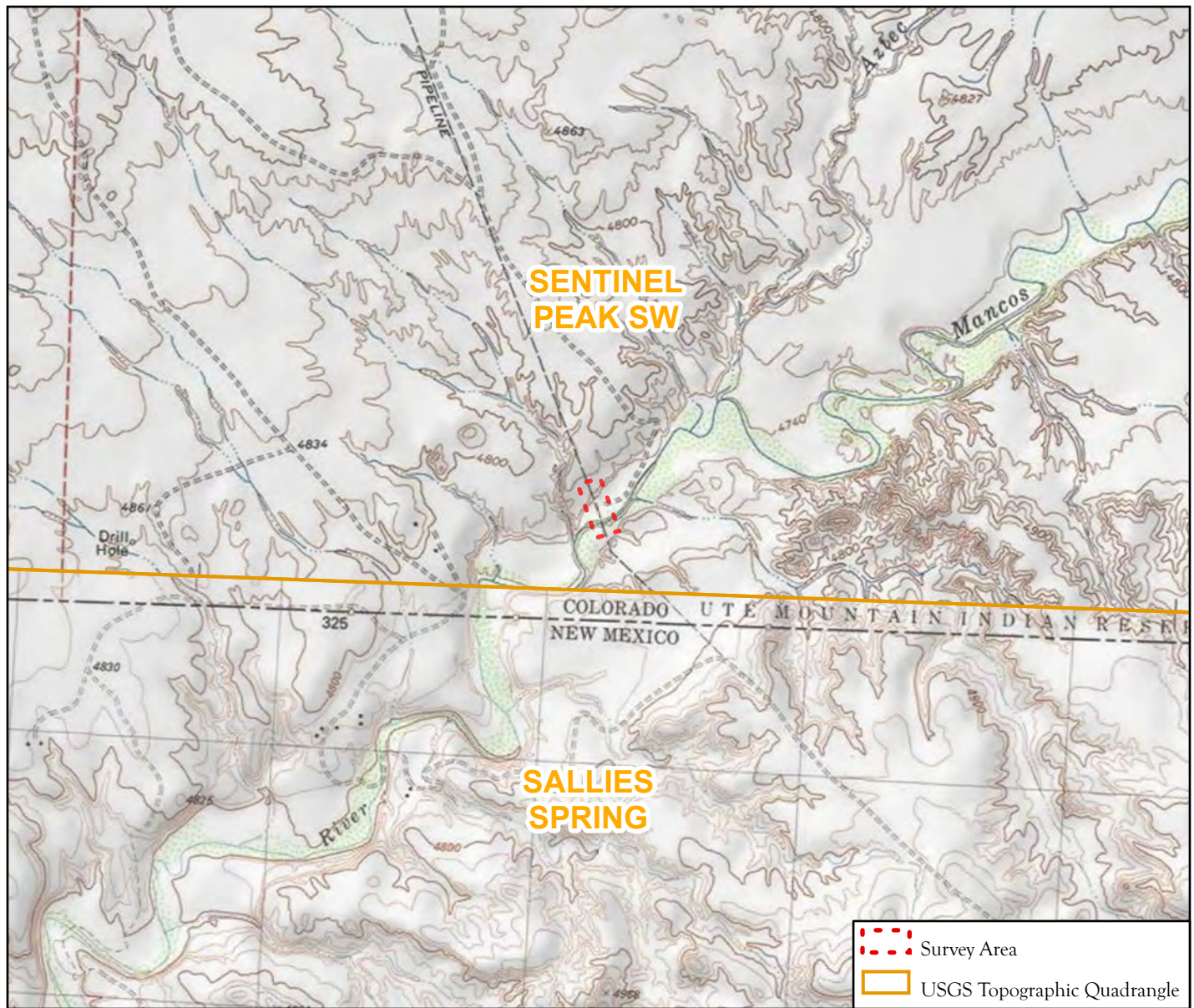
 <p><b>SME</b> ENVIRONMENTAL CONSULTANTS</p> <p>679 East 2nd Ave. Unit E2, Durango, Colorado 81301 www.sme-env.com (970) 259-9595</p>	Drawn by:	Rvwd. by:	Project No.:	<b>ROAD VICINITY MAP</b>	
	KB	KZ	200037		
	Date:	Rsvd. Date:	Scale:	AQUATIC RESOURCES DELINEATION REPORT RHP MANCOS WASH CROSSING MP 29 MONTEZUMA COUNTY, CO	
	12/1/2020	NA	1:24,000		
					<b>FIGURE B1</b>

**PROJECT LOCATION:**


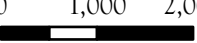
Township 32 North, Range 19 West, NESW of Section 20;  
New Mexico Principal Meridian  
Montezuma County, Colorado.

**PROJECT AREA CENTROID (NAD 1983):**

Latitude: 37.0028375°  
Longitude: -108.9420583°



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www.sme-env.com (970) 259-9595

Drawn by:	Rvwd. by:	Project No.:
KB	KZ	200037
Date:	Rsvd. Date:	Scale:
12/1/2020	NA	1:24,000
 		
Feet		

**TOPOGRAPHIC LOCATION MAP**

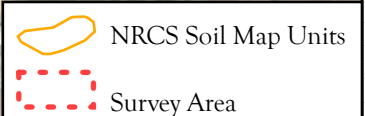
AQUATIC RESOURCES  
DELINEATION REPORT  
RHP MANCOS WASH CROSSING MP 29  
MONTEZUMA COUNTY, CO

**FIGURE**  
**2**



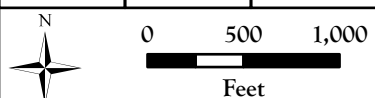
**NRCS SOIL MAP UNITS WITHIN PROJECT AREA:**

12 - Blackston-Camac-Rock outcrop complex, 0 to 60 percent slopes  
 44 - Jeddito-Escavada association, 0 to 3 percent slopes



679 East 2nd Ave. Unit E2, Durango, Colorado 81301  
 www.sme-env.com (970) 259-9595

Drawn by:	Rvwd. by:	Project No.:
KB	KZ	200037
Date:	Rsvd. Date:	Scale:
12/1/2020	NA	1:12,000



**SOILS MAP**

AQUATIC RESOURCES  
 DELINEATION REPORT  
 RHP MANCOS WASH CROSSING MP 29  
 MONTEZUMA COUNTY, CO

**FIGURE  
 B3**

---

## **APPENDIX C**

### **Photo Documentation**

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**Select Photos from Field Delineation  
Running Horse Pipeline MP 29 Mancos Wash**

Photos taken by Samantha Bohn, SME Wetland Scientist on October 1, 2020



Photo Point 1 (PP1) is looking south/southeast at the rocky and primarily unvegetated upland area that characterizes the northern portion of the survey area.



PP2 is looking west at the Mancos River in the center of the survey area. The Mancos River has some vegetation growing within the channel, including Tamarisk sp. (*Tamarix sp.*) and Rough cockleburr (*Xanthium strumarium*).

**Select Photos from Field Delineation  
Running Horse Pipeline MP 29 Mancos Wash**

Photos taken by Samantha Bohn, SME Wetland Scientist on October 1, 2020



PP3 is looking east at the Mancos River channel just west east of the access road. A large storm recently deposited large amounts of sediment in this section of the channel. The Running Horse pipeline runs through this section of the river, just east of where this photo was taken (background).



PP4 is looking southwest at where the access road crosses the Mancos River.

**Select Photos from Field Delineation  
Running Horse Pipeline MP 29 Mancos Wash**

Photos taken by Samantha Bohn, SME Wetland Scientist on October 1, 2020



PP5 is looking north at the upland area within the right-of-way (ROW) of the Running Horse Pipeline. This area is dominated by low-lying upland herbaceous vegetation and upland shrubs.



PP6 is looking east at the Mancos River, just east of the Running Horse Pipeline crossing. A large storm recently deposited large amounts of sediment in this section of the channel.

**Select Photos from Field Delineation**  
**Running Horse Pipeline MP 29 Mancos Wash**

Photos taken by Samantha Bohn, SME Wetland Scientist on October 1, 2020



PP7 is looking southeast at a section of common reed (*Phragmites australis*) along the northern bank of the Mancos River. The bank along this section is very steep. While common reed is wetland species, no hydric soils or hydrology were present in this area, and therefore this area is not considered a wetland.

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## **APPENDIX D**

### **Plant List**

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**Appendix D: List of Dominant Plant Species Observed within the Survey Area.**

Scientific Name*	Common Name	Wetland Indicator Status**
<b>SHRUBS</b>		
<i>Ericameria nauseosa</i>	Rubber rabbitbrush	UPL
<i>Tamarix sp</i>	Tamarisk sp.	N/A
<b>HERBS</b>		
<i>Rhaponticum repens</i>	Russian knapweed	UPL
<i>Atriplex canescens</i>	Fourwing saltbush	UPL
<i>Xanthium strumarium</i>	Rough Cocklebur	FAC
<b>GRAMINOIDS</b>		
<i>Phragmites australis</i>	Common Reed	FACW

• OBL: Almost always is a hydrophyte, rarely in uplands

• FAC: Commonly occurs as either a hydrophyte or non-hydrophyte

• NL (Not Listed): generally indicates upland species

\* Scientific names according to Synonymized Checklist of the Vascular Flora of the United States, Canada, and Greenland (Kartesz 2009) and National Wetland Plant List (NWPL).

\*\* 2018 NWPL is regionalized along the 10 wetland delineation supplement regions. Wetland indicator status based on Arid West Region.

• FACW: Usually is a hydrophyte but occasionally found in uplands

• FACU: Occasionally is a hydrophyte but usually occurs in uplands

• N/A: Unable to identify to species due to time of year

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## **APPENDIX E**

### **Wetland Determination Data Forms**

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# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Running Horse Pipeline MP 29 Mancos Wash City/County: Montezuma County Sampling Date: 10/1/20  
 Applicant/Owner: Navajo Nation Oil and Gas Company State: CO Sampling Point: DP1  
 Investigator(s): SKB Section, Township, Range: Section 20, Township 32 North, Range 19 West  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 3  
 Subregion (LRR): D Lat: 37.00260471 Long: -108.94141221 Datum: NAD 83  
 Soil Map Unit Name: Jeddito-Escavada association, 0 to 3 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No ☒ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  According the U.S. Drought Monitor, Montezuma County was in extreme drought at the time of the October site visit (USDA, September 29 and October 6, 2020).	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: _____)</b> 1. <u>Phragmites australis</u> <u>100</u> <u>Yes</u> <u>FACW</u> 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____				

**Hydrophytic Vegetation Indicators:**  
☒ Dominance Test is >50%  
☐ Prevalence Index is ≤3.0<sup>1</sup>  
☐ Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ☒ No \_\_\_\_\_

Remarks:  
No sapling/shrub, tree, or woody vine strata were present at this data point.

# SOIL

Sampling Point: DP1

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/4	100					Silt	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

Extremely dry

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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## **APPENDIX F**

### **USDA NRCS Soils Report**

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## **Appendix F: USDA NRCS Soils Report for soil units within the Survey Area**

### ***Ute Mountain Area, Colorado and New Mexico***

#### **Map Unit: 12—Blackston-Camac-Rock outcrop complex, 0 to 60 percent slopes**

##### **Component: Blackston (55%)**

The Blackston component makes up 55 percent of the map unit. Slopes are 0 to 2 percent. This component is on terraces. The parent material consists of alluvium derived from mixed. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R035XY414CO Alkali Flat ecological site. Nonirrigated land capability classification is 7c. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 13 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 9 within 30 inches of the soil surface.

##### **Component: Camac (20%)**

The Camac component makes up 20 percent of the map unit. Slopes are 15 to 60 percent. This component is on terraces. The parent material consists of alluvium derived from mixed over residuum weathered from shale and siltstone. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R035XY406CO Saltdesert Breaks ecological site. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 13 percent. The soil has a slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 9 within 30 inches of the soil surface.

##### **Component: Rock outcrop (15%)**

Generated brief soil descriptions are created for major soil components. The Rock outcrop is a miscellaneous area.

##### **Component: Fruitland (5%)**

Generated brief soil descriptions are created for major soil components. The Fruitland soil is a minor component.

##### **Component: Mesa (5%)**

Generated brief soil descriptions are created for major soil components. The Mesa soil is a minor component.

#### **Map Unit: 44—Jeddito-Escavada association, 0 to 3 percent slopes**

##### **Component: Jeddito (70%)**

The Jeddito component makes up 70 percent of the map unit. Slopes are 0 to 3 percent. This component is on terraces. The parent material consists of alluvium derived from sandstone and shale. Depth to a

root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. This component is in the R035XY266CO Salt Meadow ecological site. Nonirrigated land capability classification is 7c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 1 percent. The soil has a slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

**Component:** Escavada (15%)

The Escavada component makes up 15 percent of the map unit. Slopes are 0 to 1 percent. This component is on flood plains. The parent material consists of alluvium derived from sandstone and shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 66 inches during January, February, March, April, May, June, November, December. Organic matter content in the surface horizon is about 0 percent. This component is in the R035XY266CO Salt Meadow ecological site. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. The soil has a slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

**Component:** Riverwash (10%)

Generated brief soil descriptions are created for major soil components. The Riverwash soil is a minor component.

**Component:** Hamburn (5%)

Generated brief soil descriptions are created for major soil components. The Hamburn soil is a minor component.

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## **APPENDIX G**

### **Signed statement from property owner(s) allowing access**

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The survey area is located within Ute Mountain Ute Tribal Land. The Ute Mountain Ute Tribe requires a Ute Mountain Ute Tribe crossing permit for non-Tribal members to access Tribal lands. Therefore, landowner notification and/or permission is not required if a site visit is conducted by the U.S. Army Corps of Engineers (USACE) for the purpose of verification of aquatic resource boundaries; however, a crossing permit would be required.

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## **APPENDIX H**

### **Aquatic Resource Excel Sheet (Provided digitally)**

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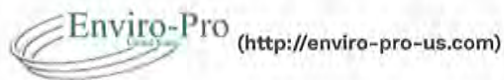
(U.S. Army Corps of Engineers only)

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## **ATTACHMENT 3**

### **Revetment Mat Information**

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## REVETMENT MATS

Enviro-Pro's revetment mats are an articulating concrete mat used primarily for shoreline stabilization and erosion control. Articulating concrete block systems (ACBs) provide a flexible alternative to riprap, gabions and rigid revetments. With slight repositioning, the ACBs easily compensate for changing flow patterns. Low hydraulic characteristics and open areas allow for re-vegetation making these mats ideal for channel and shoreline erosion control applications

## SPECIFICATIONS

Dimensions: 8' X 20' X 4.5" (2.4m X 6.1m X 11.85cm)

Weight: Air 6,200 lbs. (2,948kg)

Weight Submerged: 3,600 lbs. (1,633kg)  
(approx.)

Concrete Density: 145 lbs. per cu. ft., 4,000 psi

Revetment Mat Spec Sheet (View Spec Sheet  
(<http://www.enviro-pro-us.com/wp-content/uploads/2016/10/Concrete-Revetment-Mat-Spec.pdf>))



Submar Mats: The Story Behind the Industry-Leading Articulated Concrete Revetment Mats

HOME (HTTPS://SUBMAR.COM) / BLOG (HTTPS://SUBMAR.COM/BLOG) / ARTICULATED CONCRETE MAT (HTTPS://SUBMAR.COM/CATEGORY/ARTICULATED-CONCRETE-MAT/) / SUBMAR MATS: THE STORY BEHIND THE INDUSTRY-LEADING ARTICULATED CONCRETE REVETMENT MATS



(<https://submar.com/submar-mat-articulated-concrete-revetment-mats/>)

AUGUST 6, 2018 | SUBMAR ([HTTPS://SUBMAR.COM/AUTHOR/SUBMAR/](https://submar.com/author/submar/)) | ARTICULATED CONCRETE MAT ([HTTPS://SUBMAR.COM/CATEGORY/ARTICULATED-CONCRETE-MAT/](https://submar.com/category/articulated-concrete-mat/)), EROSION CONTROL ([HTTPS://SUBMAR.COM/CATEGORY/EROSION-CONTROL/](https://submar.com/category/erosion-control/)), OIL AND GAS PIPELINES ([HTTPS://SUBMAR.COM/CATEGORY/OIL-AND-GAS-PIPELINES/](https://submar.com/category/oil-and-gas-pipelines/)), PIPELINE EROSION CONTROL ([HTTPS://SUBMAR.COM/CATEGORY/PIPELINE-EROSION-CONTROL/](https://submar.com/category/pipeline-erosion-control/)), SUBMAR ([HTTPS://SUBMAR.COM/CATEGORY/SUBMAR/](https://submar.com/category/submar/))



Privacy - Terms

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**ATTACHMENT 4**  
**Compliance with Section 7 of the Endangered Species Act**

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## United States Department of the Interior



### FISH AND WILDLIFE SERVICE

Western Colorado Ecological Services Field Office

445 West Gunnison Avenue, Suite 240

Grand Junction, CO 81501-5711

Phone: (970) 628-7180 Fax: (970) 245-6933

<http://www.fws.gov/mountain-prairie/es/Colorado/>

<http://www.fws.gov/platterriver/>

In Reply Refer To:

November 10, 2020

Consultation Code: 06E24100-2021-SLI-0084

Event Code: 06E24100-2021-E-00188

Project Name: Running Horse Pipeline - MP 29

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
  - Migratory Birds
  - Wetlands
-

# Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Western Colorado Ecological Services Field Office**

445 West Gunnison Avenue, Suite 240

Grand Junction, CO 81501-5711

(970) 628-7180

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## Project Summary

Consultation Code: 06E24100-2021-SLI-0084

Event Code: 06E24100-2021-E-00188

Project Name: Running Horse Pipeline - MP 29

Project Type: OIL OR GAS

Project Description: Repair exposed pipeline in Mancos River

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.00266619354048N108.94191219353314W>



Counties: Montezuma, CO

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## Endangered Species Act Species

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## Mammals

NAME	STATUS
New Mexico Meadow Jumping Mouse <i>Zapus hudsonius luteus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/7965">https://ecos.fws.gov/ecp/species/7965</a>	Endangered

## Birds

NAME	STATUS
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/6749">https://ecos.fws.gov/ecp/species/6749</a> Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/149/office/65413.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/149/office/65413.pdf</a>	Endangered
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is <b>proposed</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/3911">https://ecos.fws.gov/ecp/species/3911</a> Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/6901/office/65413.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/6901/office/65413.pdf</a>	Threatened

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## Fishes

NAME	STATUS
<b>Colorado Pikeminnow (=squawfish) <i>Ptychocheilus lucius</i></b> Population: Wherever found, except where listed as an experimental population There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/3531">https://ecos.fws.gov/ecp/species/3531</a>	<b>Endangered</b>
<b>Razorback Sucker <i>Xyrauchen texanus</i></b> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"><li>▪ Water depletions in the upper Colorado River basin adversely affect this species and its critical habitat. This species does not need to be considered if the project is outside of its occupied habitat and does not deplete water from the basin.</li></ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/530">https://ecos.fws.gov/ecp/species/530</a>	<b>Endangered</b>

## Flowering Plants

NAME	STATUS
<b>Mesa Verde Cactus <i>Sclerocactus mesae-verdae</i></b> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6005">https://ecos.fws.gov/ecp/species/6005</a>	<b>Threatened</b>

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

# USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

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# Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

THERE ARE NO FWS MIGRATORY BIRDS OF CONCERN WITHIN THE VICINITY OF YOUR PROJECT AREA.

## Migratory Birds FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the migratory birds potentially occurring in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

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Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

### **What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### **How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

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For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### **What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### **Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

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# Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

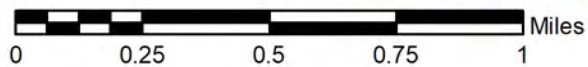
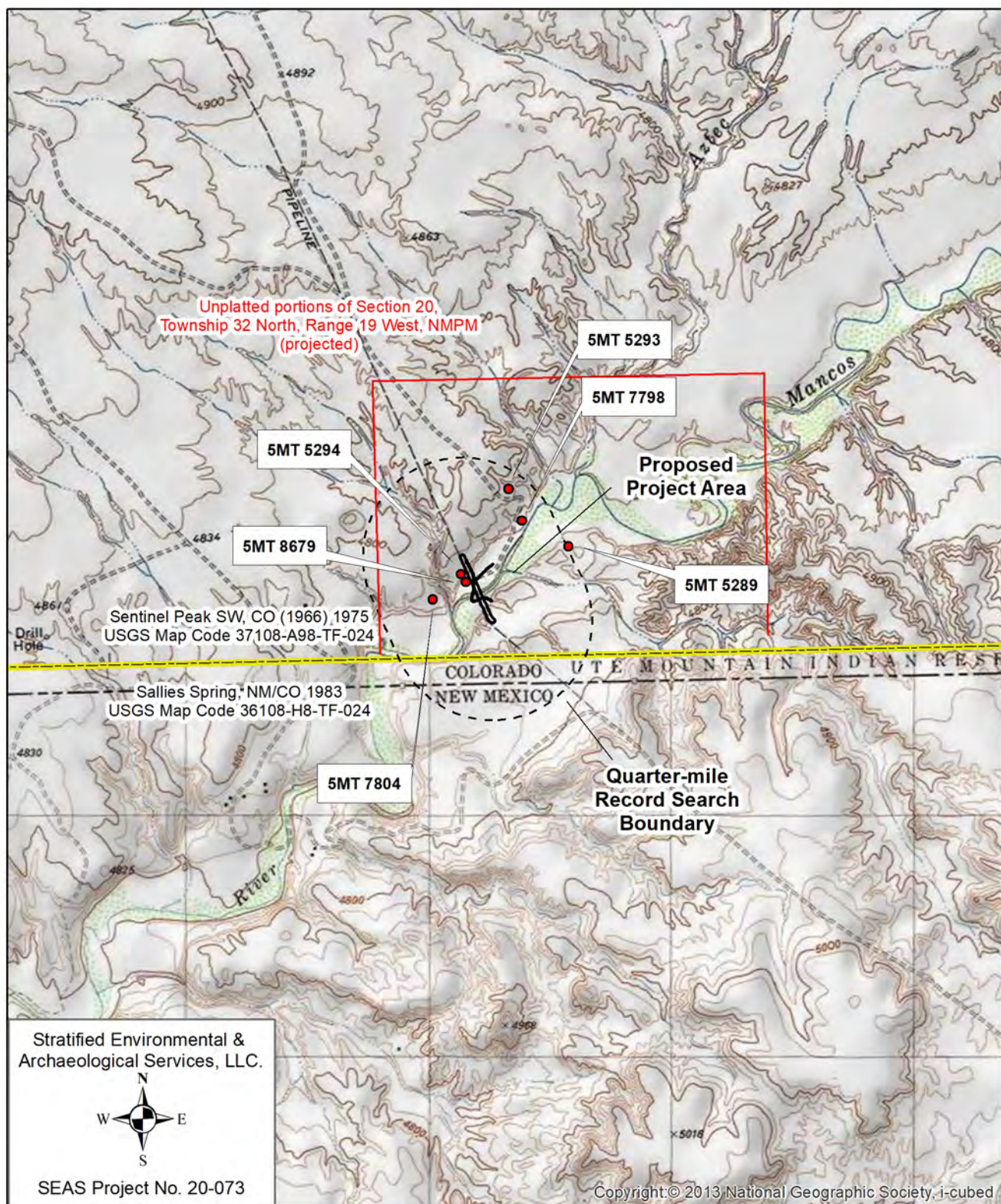
## RIVERINE

- [R3UBH](#)
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**ATTACHMENT 5**  
**Compliance with Section 106 of the National Historic Preservation Act**

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### SEAS 20-073 - Previously Recorded Sites within One-quarter Mile of the Project Area

Site Number	Site Type	Cultural/Temporal Affiliation	NRHP Eligibility	CHS Project/Report Identification Numbers
5MT 5289	Open architectural	Ancestral Pueblo, Pueblo II to Pueblo III	Field-recommended Eligible	MT.IA.R101; MT.IA.R104
5MT 5293	Quarry	Unspecified	Not listed on Compass	MT.IA.R101
5MT 5294	1) Granary 2) Building complex	1) Unspecified Ancestral Pueblo 2) Historic Ute	Not listed on Compass	MT.IA.R101
5MT 7798	Open lithic	Native American, unspecified	Field-recommended Not Eligible	MT.IA.R104
5MT 7804	Open architectural	Ancestral Pueblo, Pueblo I/II/III	Field-recommended Eligible	MT.IA.R104
5MT 8679	1) Granary 2) Open architectural	1) Ancestral Pueblo, late Pueblo III 2) Historic Ute	Field-recommended Eligible	MT.IA.R126

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**ATTACHMENT 6**  
**Documentation of Pre-Filing Request**

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Kerrienne Zdimal <kerri@sme-env.com>

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**Re: Pre-Filing Meeting Request - RHP MP 29 Mancos Wash**

1 message

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**Colin Larrick** <clarrick@utemountain.org>

Mon, Oct 19, 2020 at 10:38 AM

To: Kerrienne Zdimal <kerri@sme-env.com>

Cc: Kara A SPK Hellige <Kara.A.Hellige@usace.army.mil>, Sean Moore <smoore@sme-env.com>, Troy Watson <TWatson@nnogc.com>

Hi Kerrienne,

We've received your notice for a pre-filing meeting request for a 401 Water Quality Certification from our department for the Running Horse Pipeline MP 29 project crossing the Mancos River on the Ute Mountain Ute Reservation. We would like to host an on-site pre-filing meeting at the project location the week of Nov. 2nd or Nov. 9th.

We do have concerns with potential limited life expectancy of gabion baskets for this proposed use. Please consider some other options for long term stabilization prior to our meeting. We would also appreciate receiving information regarding the use and long term stability of concrete revetment mats in similar type installations to help us evaluate that option.

Sincerely,

Colin Larrick

Water Quality Program Manager

Ute Mountain Ute Tribe

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**From:** Kerrienne Zdimal <[kerri@sme-env.com](mailto:kerri@sme-env.com)>

**Sent:** Thursday, October 15, 2020 12:00 PM

**To:** Colin Larrick

**Cc:** Kara A SPK Hellige; Sean Moore; Troy Watson

**Subject:** Pre-Filing Meeting Request - RHP MP 29 Mancos Wash

Good Day Colin,

We are sending this email in regard to Clean Water Act Section 401 Water Quality Certification for a proposed pipeline project at MP 29 along Mancos Wash within Section 20, Township 32 North, Range 19 West (see attached map). The purpose of the Navajo Nation Oil and Gas (NNOGC)

Mancos Wash, CO project is to address the potential hazard along the Running Horse Pipeline (RHP) where the existing pipeline crosses the Mancos Wash. The existing RHP has approximately 10 ft. of pipeline exposure in the Mancos Wash.

NNOGC proposes to address the immediate risk of pipeline failure by exposing the pipeline, address any corrosion concerns, re-coat the pipeline, backfill the exposed pipe and reinforce the wash with gabion baskets and concrete mats. The approximate pipeline exposure trench would be 20 ft. – 30 ft. to maximize pipeline assessments and work maneuverability. The concrete revetment mats would be installed along the bottom of the reclaimed streambeds overtop of the reburied pipeline. The gabion baskets would be installed to stabilize the stream banks on each side of the crossing areas. All proposed work would be confined to the existing 50 ft. wide RHP right-of-way easement.

After the pipeline integrity assessment is complete, NNOGC will backfill with river sand and rocks inside the pipeline right of way. The backfill material will be trucked in, placed on top of the pipeline, leveled and spread across the pipeline right of way within the disturbed area. Work would require the use of standard pipeline construction equipment such as backhoes and excavators. The staging of vehicles will take place on the RHP pipeline right-of-way. The proposed work would occur as soon as possible to mitigate the potential for any pipeline failure.

To complete this work - NNOGC plans to submit a Clean Water Act Section 404 permit request from the U.S. Army Corps of Engineers and Clean Water Act Section 401 Water Quality Certification from the Ute Mountain Ute Tribe.

The “Clean Water Act Section 401 Certification Rule” became effective on September 11, 2020 which requires a pre-filing meeting request. The purpose of this email is to submit a pre-filing meeting request in accordance with §121.4 of the new Clean Water Act Section 401 Certification Rule. Please advise if a pre-filing meeting is needed for this project.

The project proponent is cc'd on this email. Please let us know if you need any additional information. Thank you in advance for your attention to this matter.

Sincerely,

kz

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**Kerrianne Zdimal, PWS**

**Senior Regulatory Specialist**

SME Environmental Consultants

(970) 259-9595, (970) 259-0500 fax

CONFIDENTIAL NOTICE: The information contained in this email and attachments is intended for the use of the addressee(s) and contains information that is confidential and/or privileged. If you are not the intended recipient or the person responsible for delivering it to the intended recipient, any disclosure, dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and destroy this email and attachments.

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**ATTACHMENT 7**  
**Ute Mountain Ute Tribe Letter Regarding Clean Water Act Section 401**  
**Water Quality Certification**

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# *Ute Mountain Ute Tribe*

Environmental Programs Department

P.O. Box 448

Towaoc, Colorado 81334-0448

(970) 564-5430

Mr. Allan Steinle  
Chief, Regulatory Division  
Albuquerque District  
U.S. Army Corps of Engineers  
4101 Jefferson Plaza, NE  
Albuquerque, NM 87109  
Allan.e.steinle@usace.army.mil

**Re: Ute Mountain Ute Tribe 401 Certification of the U.S. Army Corps of Engineers January 6, 2017-  
2017 Nationwide Permits**

The Ute Mountain Ute Tribe (UMUT) has the responsibility under §401 of the Clean Water Act (CWA) to evaluate and certify water quality protections for federal permits of licenses issued for work on Ute Mountain Ute lands.

UMUT has reviewed the U.S. Army Corps of Engineers (Corps) January 6, 2017 Federal Register Notice announcing the reissuance of the Corps' CWA Section 404 Nationwide Permits (NWP) and UMUT is hereby denying water quality certification for all NWPs. In order to protect tribal water resources and ensure compliance with UMUT water quality standards individual project review and compliance with regional and general conditions will be required. Unless an individual certification is provided, the enclosed conditions become binding requirements of any NWP issued for work on UMUT tribal lands.

Projects which qualify for the use of a NWP must contact the UMUT Environmental Programs Department and apply for an individual 401 certification. For any project proponent seeking 401 certification on UMUT lands, adherence to the requirements in the enclosed General conditions are required, and detailed information must be included in the 401 application submitted to the Tribe's Environmental Programs Department for review and approval. If UMUT does not provide a certification within 60 days from when UMUT receives the complete application the enclosed general conditions and relevant Colorado Regional Conditions will apply as our 401 certification conditions. Under no circumstances are any of the 2017 NWPs as published in the January 6, 2017 Federal Register waived.

We are exercising our certification authority for the information presented in the January 6, 2017 Federal Register. We also are adopting the Corps' Colorado Regional Conditions, as submitted to UMUT on June 2, 2016, as § 401 conditions for all NWPs issued on Tribal waters. If the Corps eliminates or



makes substantial changes to any of the published NWP's or conditions, we reserve the right to amend our certification to address any and all changes.

Please contact UMUT Environmental Programs Department: Water Quality Program Manager, Colin Larrick at (970) 564-5437, [clarrick@utemountain.org](mailto:clarrick@utemountain.org); or Scott Clow, Environmental Programs Department Director at (970) 564-5431, [sclow@utemountain.org](mailto:sclow@utemountain.org) if you have any questions regarding 401 certification.

Sincerely,



3/3/17

Scott Clow  
Ute Mountain Ute Tribe  
Environmental Programs Director  
520 Sunset Blvd.  
Towaoc, CO 81334



## General Conditions

- 1) A copy of the certification documentation must be on-site.
- 2) Certification is denied for all activities affecting fens, springs, hanging gardens and difficult to replace wetlands as defined in 33 CFR332(e)(3).
- 3) All equipment must be inspected for fluid leaks and invasive species prior to use on a project. All fluid leaks shall be repaired and cleaned prior to use or when discovered, or if the fluid leak can't be repaired, the equipment shall not be used on site. Equipment used in waters with the possibility of aquatic nuisance species infestation must be thoroughly cleaned before they are used on the project.
- 4) For all NWP, the Applicant must provide to the Tribal Environmental Program a certification application which includes the following:
  - i) The information required in Corps of Engineers Nationwide Permits General Condition 32(b), 33 CFR(C)(32)(b).
  - ii) A summary of previous contacts and discussions with the Tribe's water quality staff regarding the project.
  - iii) A summary of known and tribally identified aquatic resource and cultural resource concerns.
  - iv) A description of best management practices (BMPs) and how the project will utilize construction BMPs to reduce or eliminate water quality degradation as a result of the project.
  - v) A discussion of how the project has been designed to be resilient to the effects of climate change.
- 5) All Corps of Engineers Colorado Regional Conditions.
- 6) Any additional information submitted to the Corps, such as cultural resource reports or summaries, biological assessments for endangered species, drawings, maps, etc., must be included in the certification application.



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**ATTACHMENT 8**  
**USACE Sacramento District Regional Conditions for Colorado**

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## **2017 Regional Conditions to Nationwide Permits in the State of Colorado**

**U.S. Army Corps of Engineers  
Albuquerque District  
Omaha District  
Sacramento District**

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### **Regional Conditions Applicable to Specific Nationwide Permits within the State of Colorado**

1. Nationwide Permit No. 12: Utility Line Activities. Notification to the District Engineer (DE) in accordance with General Condition (GC) No. 32, pre- construction notification (PCN) is required for utility line activities that propose open trenching in perennial waters or for the purpose of creating a water intake.
2. Nationwide Permit No. 13: Bank Stabilization. PCN is required for bank stabilization activities that are necessary for erosion prevention in streams with an average width of less than 20 feet (measured between the ordinary high water marks (OHWM)). Bank stabilization activities in these small streams are limited to the placement of no more than ¼ cubic yard of fill material per linear foot below the plane of the OHWM unless the Corps determines on a case-by-case basis that the use of larger or greater quantities of material is appropriate.
3. Nationwide Permit No. 23: Approved Categorical Exclusions. PCN is required for all projects utilizing Categorical Exclusions.
4. Nationwide Permit No. 27: Aquatic Habitat Restoration, Establishment, and Enhancement Activities. This permit is revoked for activities in which the project purpose is fishery enhancement in perennial streams. These types of projects may qualify for authorization under Regional General Permit No. 12 for Aquatic Habitat Improvement for Stream Channels in Colorado.
  - a. Channel realignment is not authorized by this permit unless it is demonstrated that the realignment is consistent with the natural morphological evolution of the stream.
  - b. The use of concrete/grouting is not allowed in perennial streams unless waived in writing by the DE.
  - c. The construction of water parks (e.g. kayak courses) and flood control projects are not authorized by this permit.

### **Regional Conditions Applicable to All Nationwide Permits within the State of Colorado**

5. Important Spawning Areas. Activities are not authorized by any nationwide permit except after case-by-case review and consultation with Colorado Parks and Wildlife (CPW) if the activities would adversely affect important spawning areas or would be conducted in these waters during trout and Kokanee spawning seasons. Bio-engineering techniques, such as native riparian shrub plantings, are required for all bank protection activities that exceed 50 linear feet in important spawning areas. For activities located in these important spawning areas, PCN is required and consultation with CPW must be conducted in accordance with the timeframes established in GC 32 (Pre-Construction Notification). Important spawning areas are considered Gold Medal Waters in Colorado (Attachment 2).

*NOTE: Pre-application consultation with the CPW, preferably on-site, is highly recommended. Providing documentation of pre-application consultation with CPW, stating that CPW has reviewed the proposed project and has no concerns, will be helpful in project evaluation by the Corps. Please visit the following state website to determine the appropriate CPW office for coordination: <http://cpw.state.co.us>.*

6. Fens. All nationwide permits, with the exception of 3, 5, 6, 20, 27, 32, 37, and 38, are revoked for activities located in fens and wetlands adjacent to fens. PCN is required for activities proposed for authorization by Nationwide Permits. The PCN will address potential adverse effects to fen hydrology. The permittee may not begin the activity until the Corps determines the adverse environmental effects are minimal.

A fen is defined as a groundwater-fed wetland with saturated organic soil (greater than or equal to 16 inches in thickness) that is classified as a histosol in the Natural Resources Conservation Service (NRCS) Field Indicators of Hydric Soils in the United States (Version 8.0, 2016). A copy of the document can be obtained from the NRCS at [http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_053171.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_053171.pdf).

*Note: A fen may be part of a larger aquatic system (fen complex) where wetlands and other waters adjacent to the fen may provide a critical source of hydrology necessary for sustaining the fen.*

7. Springs. PCN is required for all Nationwide Permits if the activities occur within 100 feet of the discharge point of a spring. The Corps will determine if the proposed project will have more than a minimal effect to the spring and may require an Individual Permit or project modification to reduce/eliminate the spring impacts. For the purposes of this regional condition, a spring is defined as any location where groundwater flow emanates from a distinct point. Springs do not include seeps or other groundwater discharge areas where there is no distinct point source.

8. Suitable Fill. A PCN is required for the use of broken concrete as fill material within the State of Colorado. Permittees must demonstrate that soft engineering methods utilizing native or non-man made materials are not practicable (with respect to cost, existing technology, and logistics), before broken concrete is allowed as suitable fill. Use of broken concrete with exposed rebar is prohibited.

## **ADDITIONAL INFORMATION**

The following additional information relates to minimization of impacts to jurisdictional waters of the United States and compliance with the General Conditions:

1. **Permittees are reminded** that appropriate erosion and sediment controls are required in accordance with GC No. 12 in order to properly stabilize the site and prevent erosion and siltation into wetlands and other waters downstream. Streambed material or other small aggregate material placed alone for bank stabilization will not meet GC No. 12.

2. **Permittee best management practices.** In order to prevent the spread of invasive and/or nuisance species (e.g., Asian Clam, Grand Valley Asian Tapeworm, Green River Mud Snail, New Zealand Mud Snail), the permittee is strongly encouraged to clean heavy equipment prior to and after construction if the equipment was previously used in another stream, river, lake, pond or wetland within 10 days of initiating work. The following are recommended methods for preventing the spread of invasive aquatic organisms:

Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.) and spray/soak equipment with a 1:15 solution of disinfection solution containing the following ingredients:

- Dialkyl dimethyl ammonium chloride (5-10% by weight);

- Alkyl dimethyl benzyl ammonium chloride (5-10% by weight);
- Nonyl phenol ethoxylate (5-10% by weight);
- Sodium sesquicarbonate (1-5%); and,
- Tetrasodium ethylene diaminetetraacetate (1-15%)

The equipment should be kept moist for at least 10 minutes, and rinsate should be managed as a solid waste in accordance with local, county, state, or federal regulations. Alternately, equipment, hand tools, boots and any other equipment that was previously used in a river, stream, lake, pond, or wetland prior to moving the equipment to another water body may be disinfected using the following methods:

- Spray/soak equipment with water greater than 140 degrees Fahrenheit for at least 10 minutes.
- Sanitize water suction hoses and water transportation tanks (using methods described above) and discard rinse water at an appropriately permitted disposal facility.

**3. Designated Critical Resource Waters.** Within the State of Colorado, the waters listed in **Attachment 1** are designated as Critical Resource Waters. In accordance with GC 22, the discharge of dredged or fill material is not authorized by the following nationwide permits in these waters or their adjacent wetlands: NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, A and B. In addition, in accordance with GC 32, notification to the DE is required for the use of the following nationwide permits in these waters and their adjacent wetlands: NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37 and 38.

**4. Gold Medal Waters.** Within the State of Colorado, the waters listed in **Attachment 2** are designated as Gold Medal Waters. Requirements for projects located in these waters and their adjacent wetlands are set forth in RC 5 above.

## ATTACHMENT 1

### DESIGNATED CRITICAL RESOURCE WATERS

The Colorado Water Quality Control Division designates Critical Resource Waters within the State of Colorado. Please note that the following list is subject to change and typically changes on an annual basis. For the most current list, or for more information on specific designations within these watersheds and their tributaries, please refer to the Colorado Water Quality Control Commission's website:

<https://www.colorado.gov/pacific/cdphe/wqcc>

**Animas and Florida River Basins.** All tributaries to the Animas River and Florida River, including all wetlands, which are within the Weminuche Wilderness Area.

Hermosa Creek, including all tributaries, from the source to immediately below the confluence with Long Hollow, except for the East Fork of Hermosa Creek.

All lakes and reservoirs tributary to the Animas River and Florida River which are within the Weminuche Wilderness Area. This segment includes Lillie Lake, Castilleja Lake, City Reservoir, Emerald Lake, Ruby Lake, Balsam Lake, Garfield Lake, Vestal Lake, Eldorado Lake, Highland Mary Lakes, Verde Lakes, Lost Lake, and Crater Lake.

**Bear Creek Basin.** The main stem of Bear Creek and all tributaries, lakes, and reservoirs, including wetlands, within the Mt. Evans Wilderness Area.

**Big Thompson River Basin.** The main stem of the Big Thompson River, including all tributaries, lakes, reservoirs, and wetlands, located within Rocky Mountain National Park (RMNP).

**Blue River Basin.** North Fork of the Swan River, including all tributaries and wetlands, from the source to the confluence with the Swan River.

All tributaries to the Blue River, including wetlands within the Eagle Nest and Ptarmigan Peak Wilderness Areas.

All lakes and reservoirs within the Eagle Nest and Ptarmigan Peak Wilderness Areas.

**Boulder Creek Basin.** All tributaries to Boulder Creek, including lakes, reservoirs, and wetlands, located within the Indian Peaks Wilderness Area.

**Cache la Poudre River Basin.** All tributaries to the Cache La Poudre River, including lakes, reservoirs, and wetlands, located within RMNP and Rawah, Neota, Comanche Peak, and Cache La Poudre Wilderness Areas.

**Clear Creek Basin.** All tributaries to Clear Creek, including lakes, reservoirs, and wetlands, located within Mt. Evans Wilderness Area.

**San Luis Valley (Closed Basin).** All tributaries in the Closed Basin, including wetlands, lakes, and reservoirs, located within the La Garita Wilderness Area.

The main stem of Sand Creek, including all tributaries and wetlands, from the source to the mouth.

The main stem of Medano Creek, including all tributaries and wetlands, from the source to the mouth

**Colorado River Basin.** The main stem of the Colorado River, including all tributaries and wetlands, located within or flowing into RMNP.

All tributaries to the Colorado River and Frasier River within RMNP and within the Never Summer, Indian Peaks, Byers, Vasquez, Eagles Nest, and Flat Top Wilderness Areas.

Main stem of Northwater Creek and Trapper Creek, including all tributaries and wetlands, from their source to the confluence with the East Fork of Parachute Creek. East Middle Fork of Parachute Creek, including all tributaries and wetlands from the source to the confluence with Middle Fork of Parachute Creek.

Battlement Creek, including all tributaries and wetlands, from its source to a point immediately downstream boundary of BLM lands.

Main stem of Rapid Creek, including all tributaries and wetlands, from the source to a point immediately below the confluence with Cottonwood Creek including Kruzen Springs.

**Dolores River Basin.** All tributaries to the Dolores River and West Dolores River, including all wetlands, tributaries, which are within the Lizard Head Wilderness area. main stem of Rio Lado from the source to the confluence with the Dolores River. Main stem of Spring Creek from the source to the confluence with Stoner Creek. Main stem of Little Taylor Creek from the source to the confluence with Taylor Creek. All lakes, and reservoirs tributary to the Dolores River and West Dolores River, which are within the Lizard Head Wilderness area. This segment includes Navajo Lake.

**Eagle River Basin.** All tributaries to the Eagle River system, including lakes, reservoirs, and wetlands, located within the Eagle Nest and Holy Cross Wilderness Areas of the Gore Range. Abrams Creek, including all tributaries and wetlands, from the source to the eastern boundary of the BLM lands.

**Fountain Creek Basin.** Severy Creek, including all tributaries, from the source to a point just upstream of where the Forest Service Road 330 crosses the stream.

Bear Creek, including all tributaries, from the source to a point upstream of GPS coordinated N3847682, W10454917 (this location is at elevation 8,200 feet above sea level at a 250 degree angle and 3,000 feet from the trailhead of the Mount Buckhorn Trail off High Drive).

**Upper Gunnison River Basin.** All tributaries to the Gunnison River, including and wetlands, within the La Garita, Powderhorn, West Elk, Collegiate Peaks, Maroon Bells, Fossil Ridge, or Uncompahgre Wilderness Areas.

All tributaries and wetlands from North Beaver Creek to Meyers Gulch, from the West Elk Wilderness boundary to their confluences with Blue Mesa Reservoir, Morrow Point Reservoir, or the Gunnison River, excluding Steuben Creek, North Willow Creek, and Soap Creek.

All lakes and reservoirs that are tributary to the Gunnison River and within the La Garita, Powderhorn, West Elk, Collegiate Peaks, Maroon Bells, Raggeds, Fossil Ridge, or Uncompahgre Wilderness Areas.

**Lower Gunnison River Basin.** All tributaries to the Smith Fork, including all wetlands, which are within the West Elk Wilderness Area.

All lakes and reservoirs tributary to the Smith Fork, and are within the West Elk Wilderness Area.

**North Fork of the Gunnison River Basin.** All tributaries to North Fork of the Gunnison River, including all wetlands, within the West Elk or Raggeds Wilderness Areas.

All lakes and reservoirs that are tributary to the North Fork of the Gunnison River and within the West Elk or Raggeds Wilderness areas.

**Laramie River Basin.** All tributaries to the Laramie River system, including lakes, reservoirs, and wetlands, located within the Rawah Wilderness Area.

**Los Pinos River Basin.** All tributaries to the Los Pinos River, including all wetlands, which are within the Weminuche Wilderness Area.

All lakes and reservoirs tributary to the Los Pinos River which are within the Weminuche Wilderness Area. This includes Granite Lake, Divide Lakes, Elk Lake, Flint Lakes, Moon Lake, Rock Lake, Betty Lake, Lost Lake, Hidden Lake, Vallecito Lake, Eldorado Lake, Trinity Lake, Leviathan Lake, Sunlight Lake, Hazel Lake, Columbine Lake, and Emerald Lake.

**Mancos River Basin.** All tributaries of the Mancos River located within Mesa Verde National Park.

**North Fork of the Gunnison River Basin.** All tributaries to North Fork of the Gunnison River, including lakes, reservoirs, and wetlands, located within the West Elk and Raggeds Wilderness Areas.

**North Platte River Basin.** All tributaries to the North Platte River and Encampment Rivers, including lakes and reservoirs.  
All wetlands located within the Mount Zirkle, Never Summer, and Platte River Wilderness Areas.

**Piedra River Basin.** All tributaries to the Piedra River, including all wetlands, which are within the Weminuche Wilderness Area.  
All lakes and reservoirs tributary to the Piedra River which are within the Weminuche Wilderness Area.  
This segment includes Window Lake, Monument Lake, Hossick Lake, and Williams Lakes.

**Rio Grande Basin.** All tributaries to the Rio Grande, including lakes, reservoirs, and wetlands, located within the Weminuche Wilderness Area.

**Roaring Fork River.** All tributaries of the Roaring Fork River system, including lakes and reservoirs, located within the Maroon Bells/Snowmass, Holy Cross, Raggeds, Collegiate Peaks, and Hunter/Fryingpan Wilderness Areas.

**San Juan River Basin.** All tributaries to the San Juan River, Rio Blanco, and Navajo River including all wetlands which are within the Weminuche Wilderness area and South San Juan Wilderness Area.  
All lakes and reservoirs which are tributary to the San Juan River, Rio Blanco, and Navajo River and located within the Weminuche Wilderness Area and South San Juan Wilderness Area.  
This segment includes Archuleta Lake, Spruce Lakes, Turkey Creek Lake, Fourmile Lake, Upper Fourmile Lake, Crater Lake, Quartz Lake, Fish Lake, and Opal Lake.

**San Miguel River Basin.** All tributaries, including wetlands, to the San Miguel River, and within the boundaries of the Lizard Head, or Mount Sneffels Wilderness Areas.  
All lakes and reservoirs tributary to the San Miguel River and within the boundaries of the Lizard Head, or Mount Sneffels Wilderness Areas.

**South Platte River Basin.** All tributaries to the South Platte River, including lakes, reservoirs, and wetlands, located within the Lost Creek and Mt. Evans Wilderness Areas.

**St. Vrain Creek Basin.** All tributaries to St. Vrain Creek, including lakes, reservoirs, and wetlands, located within the Indian Peaks Wilderness Areas and RMNP.

**Uncompahgre River Basin.** All tributaries to the Uncompahgre River, including all wetlands, which are within the Mt. Sneffels or Uncompahgre Wilderness Areas.  
All lakes and reservoirs tributary to the Uncompahgre River and within the Mt. Sneffels or Uncompahgre Wilderness Areas.

**White River Basin.** All tributaries to the White River, including lakes, reservoirs, and wetlands, located within the Flat Tops Wilderness Area, including Trapper's Lake.

**Yampa River Basin.** All tributaries to the Yampa River, including lakes, reservoirs, and wetlands, located within Zirkle, Flat Tops, and Sarvis Creek Wilderness Areas.

## ATTCHMENT 2

### GOLD MEDAL WATERS

The following list of important spawning areas has been defined as Gold Medal Waters by the State of Colorado. As a reminder, according to RC 5 above, PCN is required for all proposed nationwide permit activities in these waters; consultation with CPW must be conducted in accordance with the timeframes established in GC 32.

NOTE: This list of Gold Medal Waters is subject to change. For the most current list, please refer to the Colorado Parks and Wildlife (CPW) Colorado Fishing Brochure available on the CPW website (<http://cpw.state.co.us/aboutus/Pages/RegulationsBrochures.aspx>) Fishing Brochure or contact any CPW or Corps office in Colorado.

### GOLD MEDAL LAKES:

**North Delaney Butte Lake** in Jackson County.

**Spinney Mountain Reservoir** in Park County.

**Steamboat Lake** in Routt County.

### GOLD MEDAL STREAMS:

**Animas River** from Lightner Creek to Rivera Crossing Bridge.

**Arkansas River** from the confluence with the Lake Fork of the Arkansas, near Leadville, downstream to Parkdale at the Hwy. 50 bridge crossing above the Royal Gorge.

**Blue River** from Dillon Reservoir Dam to Green Mountain Reservoir inlet; and From Green Mountain Reservoir dam to Colorado River confluence.

**Colorado River** from Fraser River to Troublesome Creek confluence. Also, the 24 mile reach from the confluence with Canyon Creek, at the mouth of Gore Canyon, downstream to the confluence of Rock Creek, near the town of McCoy.

**Fryingpan River** from Ruedi Reservoir dam to Roaring Fork River Confluence.

**Gore Creek** from Red Sandstone Creek to Eagle River confluence.

**Gunnison River** from the upper boundary of the Black Canyon of the Gunnison National Monument downstream to the confluence with the North Fork of the Gunnison River.

**North Platte River** from the Routt National Forest boundary to the Wyoming border.

**Rio Grande** from Farmer's Union Canal upstream to the upper boundary of Collier State Wildlife Area.

**Roaring Fork River** from the confluence with the Crystal River downstream to the confluence with the Colorado River.

**South Platte River:** The **Middle Fork** of the South Platte River downstream from U.S. Highway 285, the **South Fork** of the South Platte River downstream from the outlet at Antero Reservoir, and from the confluence of the **Middle and South Forks** of the South Platte River downstream to the inlet of Spinney Mountain Reservoir.