

ALDER ENVIRONMENTAL

water | wetlands | ecological consulting

September 4, 2024

TO: Wyoming Department of Environmental Quality

CC: Jon and Deborah Dawson (DFR LLC), Landowners
via email: jon@southportfund.com



FROM: Heidi Bellorado, Principal & Professional Wetland Scientist
Hannah Cangilla, Natural Resources Scientist

**RE: Public Comment: Analysis of Impacts to Aquatic Resources
Small Mine Permit Application-Evans Construction Inc., TFN 7 1/193**

On behalf of landowners, Jon and Deborah Dawson (DFR LLC), Alder Environmental, LLC (Alder) is providing an analysis of the submitted application to the Wyoming Department of Environmental Quality (WDEQ) for proposed expansion of the existing gravel mine located in Sections 20 and 29, T38N, R113W, Sublette County, Wyoming approximately two miles northwest of Bondurant, Wyoming (Parcel ID: 38132040005400). Alder is an environmental consulting company based in Jackson, WY, providing services and solutions for water resources, wetlands, environmental land use planning, wildlife, regulatory permitting, and GIS mapping needs.

BACKGROUND INFORMATION

The Small Mine Permit Application submitted by Evans Construction, Inc. on July 18, 2024 (TFN 7 1/193) proposes excavation of an alluvial bench which lies northeast of a wetland and stream complex with surface connectivity to the Hoback River. Per the permit application, the “proposed depth of the deepest excavation will be approximately at elevation 6495 feet” (pg. MP-2). The groundwater depth is identified at an elevation of 6,515 feet, resulting in a final pit depth 20 feet below the height of the water table (pg. MP-18). The project proposes de-watering to accommodate excavation of material beyond the elevation of the water table at a rate of 210 gallons per minute (Permit No 219203). The project also proposes the addition of on-site material processing and machinery, a use which is currently not present at the property.

The parcel proposed for the gravel mine is directly adjacent to a high-quality wetland and stream complex, with a portion of the project parcel identified as freshwater forested/shrub wetlands by the National Wetland Inventory (USFWS 2012). The proposed project is also adjacent to verified emergent and scrub shrub wetlands which were delineated by Alder Environmental on the neighboring parcel to the south in 2014 for a stream restoration project. The Hoback River, Jack Creek, and Dell Creek are within 1,000 feet of the project. These surface waters are classified by the DEQ as 2AB and designated as cold-water game fisheries. Class 2AB waters are known to support game fish populations or spawning and nursery areas. The section of Dell Creek slated for de-watering discharge is also identified by the Wyoming Game and Fish Department (WGFD) as an Aquatic Crucial Habitat Priority Area (WDEQ 2021, USFWS Correspondence Letter 2023). The landowner of adjacent property (Parcel ID: 38123040001400), in which these wetlands, streams and rivers are partially located, has implemented extensive habitat restoration and enhancement work, including over 8,300 linear feet of stream restoration along the reaches of Dell and Jack Creek.

SITE VISIT

Upon request of the Dawsons, an Alder scientist visited the adjacent parcel (Parcel ID: 381332040001400) on August 28, 2024, to evaluate existing site conditions and potential impacts to aquatic resources. The Alder scientist accessed the adjacent parcel via the shared access road and did not walk on the project property (Parcel ID: 38132040005400). Alder documented the presence of five groundwater springs which have a direct surface connection to Dell Creek and contribute flows to the creek (USGS 2012). As depicted in Figure 1, the location of spring 3, 4, and 5 are approximate and were visually observed from the adjacent parcel. These springs are located along the toe of the bench and were observed to have substantial flows even in dry season (Appendix A-Photo Log). Anecdotal accounts from the landowner indicate these springs run perennially. These accounts and field verification of flow during the dry season contradict the assertion made within the permit application of “seasonal groundwater surfacing at the bottom of the (existing) highwall” (pg. I.F 1). The Alder scientist documented water temperatures of the surface waters near the springs within the adjacent parcel and from the property line. Water temperatures throughout the site ranged from 2-5°C (35.6-41°F). Water temperature sampling locations, approximate locations of the groundwater springs, and additional photo point locations are depicted in Figure 1.

EVALUATION OF PERMIT APPLICATION

Through a thorough assessment of the permit application materials and existing site conditions, Alder has concluded that the permit application does not fully evaluate the potential impacts to Class 2AB surface waters and jurisdictional Waters of the US. The proposed mine plan does not indicate direct impacts (excavation or discharge of dredge or fill material) within wetlands on the site; however, de-watering activities proposed below the elevation of the water table are likely to impact the hydrology of the surface waters and the associated wetlands, with potential to cause degradation to these important resources. As stated in the permit application “no wetland specialist was employed to complete a survey, nor was the U.S. Army Corps of Engineers contacted” (pg. I.F.2). Due to the depiction of NWI wetlands within the project property (Parcel ID: 38132040005400) and proximity to natural wetlands and surface waters, a formal wetland delineation and consultation with the U.S. Army Corps of Engineers is warranted to determine jurisdiction and potential indirect impacts to aquatic resources.

Dell Creek and associated springs and surface waters are of special concern due to their high-quality waters and ecological contribution to the quality of habitat for Snake River cutthroat trout and moose, both species identified in correspondence with WGFD as species of consideration for this project. The WGFD State Wildlife Action Plan (SWAP), identifies a goal to “improve aquatic habitat for SGCN” including the goal “to maintain, restore or enhance salmonid spawning habitats in spring stream tributaries” (WGFD 2017). This project could threaten spring fed spawning habitat for Snake River cutthroat trout. A careful evaluation of potential impacts of dewatering is warranted.

The US Forest Service published the final Snake River Headwaters Comprehensive Management Plan in 2014, listing the section of the Hoback River (adjacent to Dell and Jack Creek), as an Eligible Wild and Scenic Rivers (WSR) segment (pg.4-6 USDA 2014). As a WSR segment, “any federally-assisted or -permitted development and activities within bed and banks of designated stretches, or directly affecting those stretches, regardless of ownership, are subject to WSRA Section 7 analysis” (USDA 2014). The corridor boundaries for protected sections are defined as “a total average of 320 acres/mile, or an average of ¼ mile from the banks on both sides of the river. Boundaries can be wider or narrower in places as long as no more than 320 acres per mile are included in the overall designation” (USDA 2014). The stated goal of the management plan is “to protect the free-flowing condition, water quality, and ‘outstandingly remarkable’ ecologic, geologic, fisheries, scenic, recreation, and cultural values of the Headwaters for the benefit and enjoyment of present and future generations” (USDA

2014). The riparian corridor created by the Hoback River, Dell Creek, and Jack Creek are connected and continuous; therefore, potential impacts should be evaluated in the context of the Snake River Headwaters Comprehensive Management Plan and in coordination with the Forest Service.

The sensitivity of spring fed systems is further emphasized by the 2021 Wyoming Regional Conditions for Nationwide Permits requiring Pre-Construction Notifications (PCN) for all regulated activities “located within 100 feet of the water source in natural spring areas. For the purpose of this condition, a spring water source is defined as any location where there is flow emanating from a distinct point at any time during the growing season” (USACE 2021). Whether activities proposed as part of the mine expansion are considered regulated activities due to the indirect impacts of dewatering are subject to USACE determination.

The permit application also describes the existing treatment of groundwater discharge; however, currently no formal de-watering appears to be occurring and gravel mining activity appears to be minimal. “Surface water seeping down from above surfaces from the base of the bank along a portion of the pit bottom on the east edge of the existing 10-acre LMO. This water flows through a series of ponds created by the contractor for sediment [sic] settling before exiting into a small drainage which flows into Dell Creek” (Appendix D-6.2). The current and proposed treatment protocols for de-watering discharge may become problematic in summer months when temperatures discharges into sensitive waters is a regulatory concern. The DEQ classification of Dell Creek as a 2AB surface water, and specifically a cold-water fishery, affords it protection from pollution in the form of temperature. “When ambient temperatures are above 60 degrees Fahrenheit (15.6 degrees Celsius) in all Class 1, 2AB and 2B waters which are cold water fisheries, pollution attributable to the activities of man shall not result in an increase of more than 2 degrees Fahrenheit (1.1 degree Celsius) in existing temperatures” (pg 1-20, WDEQ 2018). Ambient temperatures recorded during the site visit documented a cooler season and were safely below these thresholds, ranging from 2-5°C (35.6-41°F). However, in warmer months, discharge has the potential to contribute to already warm waters. Should the ambient temperature reach the specified threshold, the operator would be required to monitor for impacts related to the discharge of warmed water in sediment treatment ponds into Dell Creek. This need for potential water quality monitoring and mitigation has not been addressed by the applicant.

CONCLUSION

After reviewing the permit application and performing a site visit, it is the professional opinion of Alder that the applicant has not sufficiently evaluated the potential indirect impacts of the proposed project on the surrounding sensitive aquatic resources and water quality. The spring fed surface waters and associated wetlands are critical habitats for Snake River cutthroat trout and moose and indirect impacts due to groundwater drawdown may impact the water quality and aquatic habitats. Alder recommends coordination with the USACE to determine wetland extents, jurisdiction, and to quantify impacts to aquatic resources. Alder also recommends further coordination with the WGFD to minimize impacts to the potential spawning habitat for Snake River Cutthroat or impacts to the vegetation community of the scrub/shrub wetlands that are part of the crucial habitat for moose.

REFERENCES

U.S. Army Corps of Engineers (USACE), Northwestern Division. 2021. Wyoming NWP Regional Conditions. U.S. Army Corps of Engineers.

<https://usace.contentdm.oclc.org/utills/getfile/collection/p16021coll7/id/19970>

USDA. Bridger-Teton National Forest Supervisors Office Jackson, Wyoming. 2014. Snake River Headwaters Comprehensive River Management Plan.

<https://www.rivers.gov/sites/rivers/files/documents/plans/snake-headwaters-plan-usfs.pdf>

USFWS. 2012. National Wetlands Inventory GIS data layer. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. <http://www.fws.gov/wetlands/>

USGS. 2012. National Hydrography Dataset GIS data layer. U.S. Department of the Interior, United Geological Survey. <http://nhd.usgs.gov>. Dataset last modified on 11/5/2012.

Wyoming Department of Environmental Quality (WDEQ), Water Quality Division. 2018. *Wyoming Surface Water Quality Standards*.











Wyoming Department of Environmental Quality (WDEQ), Water Quality Division. 2021. *Wyoming Surface Water Classification List*.

Wyoming Game and Fish Department (WGFD). 2017. *State Wildlife Action Plan*.

FIGURE 1

Existing Conditions

DEQ Response Letter
Sublette County, WY

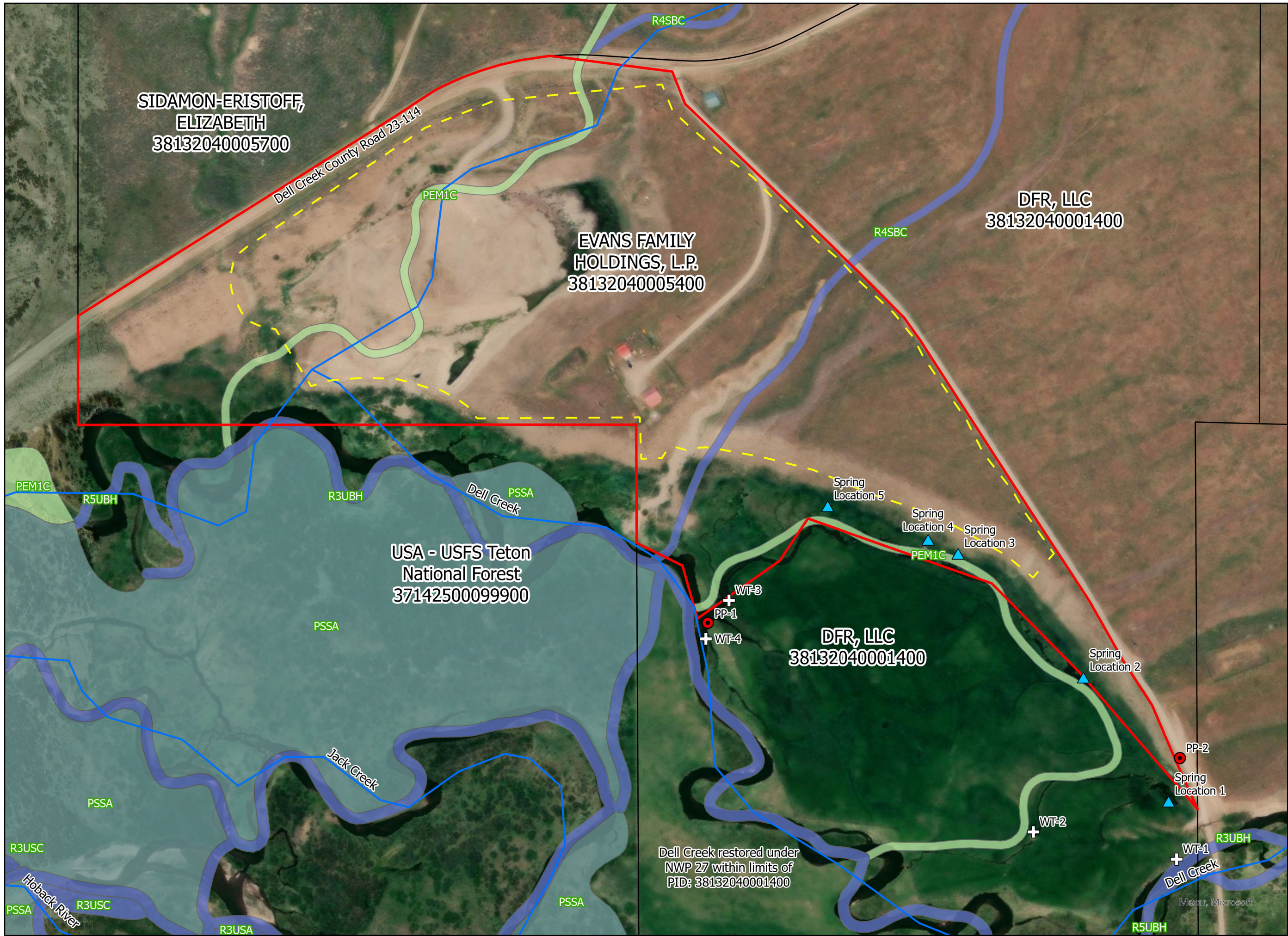
-  Proposed Gravel Mine Parcel
-  Proposed Limits of Disturbance (LOD)**
-  Parcels
-  Photo Point Location
-  Spring Location
-  Water Temperature Sample Location
-  NHD Flowline
- NWI Wetlands**
 -  Freshwater Emergent Wetland
 -  Freshwater Forested/Shrub Wetland
 -  Riverine

*location of spring 3, 4 and 5 approximate, visually observed from adjacent parcel
**location approximate

- Sources**
 - SUBLETTE COUNTY
 - Ownership Boundaries
 - ALDER ENVIRONMENTAL
 - Spring Locations (8/28/2024)
 - Water Temperature Sample Location
 - Photo Point Location
 - USFWS
 - National Wetland Inventory (NWI) Wetlands
 - USGS
 - National Hydrography Dataset (NHD) Flowline



September 04, 2024



APPENDIX A-PHOTOS



Photo 1- Looking northeast from Photo Point 1, at the confluence of the spring fed stream and Dell Creek with the project parcel in the background.



Photo 2- Looking northwest from Photo Point 2 at the larger spring fed ecosystem. One spring fed creek is visible in the lookers left side of the photo. The second spring fed creek runs north between the willows and the toe of the slope terminating in Dell Creek, multiple cold-water springs were observed along the toe of the slope.



Photo 3-Looking east from Spring Location 3 at the toe of the bench, substantial flow was observed during the August 28th field visit.