

Grand Canyon Trust • Project Eleven Hundred • Western Watersheds Project

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Comments submitted electronically through project webpage comment portal

RE: Showalter Range Water Improvement

These comments are submitted on behalf of the Grand Canyon Trust, Project Eleven Hundred, and Western Watersheds Project. We appreciate the opportunity to comment on this project.

I. Purpose & Need, Alternatives Analysis

The purpose of the project is “to increase the distribution of cattle and other ungulates to disperse utilization” (p. 5). The need is “to provide for a more reliable and broader distribution of available livestock watering sources” (p. 5). We believe this need is inappropriately narrow. There are many ways to accomplish the purpose of the project, and below we outline alternative ways to accomplish the purpose of the project.

Under the “Consideration of the No Action Alternative” section, the EA cites the Forest Service’s NEPA implementation regulations at 36 CFR 220.7(b)(2)(i-ii) for justification for only analyzing the proposed action and proceeding without the consideration of additional alternatives, including a no action alternative (p. 7). However, the EA only refers to part of 36 CFR 220.7(b)(2)(i), which reads: “When there are no unresolved conflicts concerning alternative uses of available resources (NEPA, section 102(2)(E)), the EA need only analyze the proposed action and proceed without consideration of additional alternatives.” The EA does not establish that there are no unresolved conflicts concerning alternative uses of available resources, and we propose multiple alternative uses below. We request that the following be included in the alternatives analysis for the project:

- consideration of any and all alternatives that reduce the risk of drying out wetlands
- stand-alone alternative of reduced cattle numbers to match existing availability, reliability, and distribution of water sources and, if necessary, increased range riding to disperse animals to aid in consistency of utilization

- stand-alone alternative of hauling water to increase availability, reliability, and distribution of water sources and increased range riding to disperse animals to aid in consistency of utilization
- alternative component of routing pipelines a sufficient distance away from NRHP-eligible sites to avoid potentially adverse impacts
- alternative component of routing pipelines outside of occupied UPD habitat as much as possible, and placing or replacing troughs outside of and away from occupied habitat as much as possible.

The *National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change* issued on January 9, 2023 in the Federal Register repeatedly emphasizes the need for agencies to consider alternatives for adaptation to and mitigation of climate change effects on project areas, such as increasing drought and heat, both of which are affecting the Dixie National Forest. Not considering any alternative other than the proposed action does not meet the need to consider options for adapting to climate change. Considering the effects of climate change on a proposed action, and reasonable alternatives (as well as the no-action alternative), also helps to develop potential mitigation measures to reduce climate risks and promote resilience and adaptation.¹

Despite the megadrought that began in this southwestern US region 22 years ago, the Powell RD has not reduced livestock water consumption. For instance, in 2022, the Pines and East Pines allotments permitted the same animal days (35,112 in East Pines and 61,248 animal days in Pines allotment) that were permitted in 2010; and authorized 100% of the permitted numbers.² This, despite Extreme Drought (D3) conditions³ in June 2022, when the cattle entered the two allotments, continuing through October 10, when they exited the allotments.

If the water sources of this national forest are proposed to be reduced, an alternative should also be considered that reduces cattle numbers.

II. Water Rights

The EA states that the existing water sources of Showalter Creek Springs and Berry Creek Springs are likely to continue to be used (p. 12). Regarding the well, the EA states: “The system would be metered at this location as ordered by the state engineer. “The applicant shall construct or install and maintain controlling works and a measuring device as required by section 73-5-4 of Utah Code.” (p. 5). It appears that the Forest is proposing to only meter the well, while continuing to use the existing water sources. If the existing water sources will continue to be used, metering on all sources (i.e., the existing sources in addition to the proposed well) is required to ensure that the amount of water does not exceed the quantity of the water right. Just metering the well and continuing to use the

¹ p. 11209, Federal Register /Vol. 88, No. 5 /Monday, January 9, 2023 /Notices

² Annual Operating Instructions, Pines and East Pines allotments, 2010 and 2022.

³ US Drought Monitor archives, <https://droughtmonitor.unl.edu/maps/maparchive.aspx>

existing sources would not allow for quantification of the total amount of water being used, and whether it is in conformance with the water right.

The Order of the State Engineer For Permanent Change Application Number 61-1503 (a45657) states that the water has been used for the stockwatering of 1235 equivalent livestock units (ELUs), with Water Right 61-1503 claiming a use of 771 ELUs and Water Right 61-1897 claiming a use of 464 ELUs (p. 1). The Order goes on to state:

The State Engineer observes that water right number 61-1503 with a diversion limit of 4.32 acre-feet can only provide enough water through the 153 day period of use for 368 ELUs. Also, that water right number 61-1897 with a diversion limit of 0.014 cfs can only provide enough water through the 132 day period of use for 361.44 ELUs (p. 2).

Thus it appears that there is a discrepancy between what the water has been used for and how many ELUs the water rights can actually support. We request clarification on this discrepancy, and in particular the implications of this observation of the State Engineer for the number of ELUs that can be supported by the water rights in question.

III. Hydrology and Soils

The EA states that areas around troughs would receive compaction from concentrated hoof action, and that the proposed action would lead to 0.23 acres of additional long-term soil resource commitment (p. 12). The proposed action includes the installation of up to 15 new water troughs (p. 6), and the Hydrology/Soils Specialist Report states that soil disturbance will be calculated using a 20-foot-wide radius around the trough center (p. 3). We request that this estimate be supported by the best available science or other objective documentation. Based on our observations, the area of compaction around troughs is generally far greater than a 20-foot radius.

The EA states: “If the well is only as deep as the Quaternary layer it sits on then the seasonally intermittent wet area of Spring Creek is likely to become dry all year or at least drier sooner than it currently is” (p. 12). It also states that Showalter Creek could become drier from extracting water from the proposed well since a potentiometric surface map shows the Quaternary layer of the two sites as being connected. Thus if the well extracts water from the Quaternary layer, the wet area of Spring Creek is likely to become dry all year or at least drier sooner, and Showalter Creek could also become drier.

The EA says that it is unlikely that sufficient water would be found by drilling into the Quaternary layer, and thus it is more likely that the well would be drilled into the deeper Claron formation. It goes on to state that a potential consequence of drilling into the Claron formation is that water levels at the Berry Creek Spring sites, which are likely fed by a bedrock aquifer, could drop enough such that “the riparian area could shrink in size and surficially dry noticeably” under the low transmissivity scenario. Under the high transmissivity scenario, “the riparian area would be less likely to shrink in size or noticeably surficially dry” (p. 13). “Less likely” is in comparison to the low transmissivity scenario, and does not necessarily mean there is a low likelihood. Thus if the well extracts

water from the Claron formation, there is a real possibility that the Berry Creek Spring sites would shrink in size and/or noticeably surficially dry to some extent.

The EA does not discuss potential effects on the Spring Creek area or Showalter Creek if the well is drilled into the Claron formation. The well would not be extracting water directly from the Quaternary layer thought to be the source of these riparian areas, but it would have to pierce that layer to be drilled into the Claron formation. This could potentially drain water from the alluvial aquifer sitting on the Quaternary layer down the well shaft, which could still have potential effects on these riparian areas. Thus, we believe that potential effects of drilling the well into the Claron formation on the Spring Creek area and Showalter Creek must be analyzed.

Regarding cumulative effects, the EA states that the impacts of water extraction in the John and Emery valleys, including the water extraction from this project, “could include a lowering of the groundwater table and drying or shrinking of springs where groundwater coming from these aquifers being drawn from is surficially expressed” (p. 13).

IV. Executive Order 11990 on Protection of Wetlands

The Draft EA states that the project proposal is consistent with Wetlands and Floodplains Executive Orders (p. 1).

Executive Order 11990 – Protection of Wetlands includes as one of its two primary purposes “to avoid to the extent possible the long and short term adverse impacts associated with the destruction or modification of wetlands”. The Executive Order states:

Each agency shall provide leadership and shall take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency’s responsibilities for (1) acquiring, managing, and disposing of Federal lands and facilities; and (2) providing Federally undertaken, financed, or assisted construction and improvements; and (3) conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities.”

Executive Order 11990 provides the following definition for “wetlands”:

The term “wetlands” means those areas that are inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds.

Based on this definition, the areas discussed in the previous section - Spring Creek wet area, Showalter Creek, and Berry Creek Spring sites – qualify as wetlands. Based on information provided (e.g., Figures 3 & 4 in Hydrology/Soils Specialist Report, pp. 6-7), they are all characterized by surface or groundwater that support a prevalence of

vegetative life that requires at least seasonally saturated soil conditions for growth and reproduction.

Regarding Executive Order 11990, the Hydrology/Soils Specialist Report summarizes the potential impacts to the Berry Creek Springs wetland (p. 13-14). However, it does not explain how the proposed action is consistent with Executive Order 11990 in light of the potential impacts to wetlands. In addition, it does not address potential impacts to the Spring Creek area and Showalter Creek wetlands as discussed above.

Executive Order 11990 directs agencies to minimize the loss or degradation of wetlands and “to avoid to the extent possible” adverse impacts associated with the modification of wetlands. Avoiding adverse impacts “to the extent possible” includes choosing the least damaging of alternatives. The two stand-alone alternatives we have proposed above both have the potential to minimize the loss or degradation of wetlands in comparison to the proposed action.

The EA and associated materials say that the proposed action has the potential to completely dry the Spring Creek area wetland, and to result in Showalter Creek becoming drier and in the Berry Creek Spring sites shrinking and/or superficially drying. The potential for complete or partial drying of wetlands, which would run counter to the direction of Executive Order 11990 on Protection of Wetlands, is a potentially significant impact that calls for analysis in an Environmental Impact Statement.

V. Wildlife

The EA states: “Consistent and reliable watering sources provide for improved wildlife habitat effectiveness across the project area” (pp. 4-5). There is no science provided to support this claim, nor are species to which this refers specified. The proposed action will spread cattle use to areas currently receiving little or no use, which has the potential to impact wildlife such as small mammals and pollinators dependent on herbaceous vegetation (grasses, rushes, sedges, forbs). The EA does not address this potential impact.

The EA states that the scientific literature used for wildlife resources includes Recovery and/or Conservation Plans and Strategies for TES (p. 10).

A. *Utah Prairie Dog* (UPD)

The EA states that the pipeline would be laid in occupied UPD habitat. The effects analysis does not address the potential negative effects of cattle grazing in areas currently receiving little or no use as a result of the project. The EA states that the distribution of livestock resulting from the project “would have a beneficial impact on UPD habitat throughout the proposed project area”, as well as on UPD population numbers. The EA also states that the proposed action would enhance “distribution and population numbers throughout the recovery area.” The EA says that the project would “better facilitate livestock use within suitable and occupied UPD habitat”, and that “this is viewed as a positive and beneficial impact to wildlife habitat effectiveness and as a watershed benefit.” Finally, the EA states

that the proposed action “improves the habitat and resources for [UPD]” (p. 11). No science is provided in the EA to support these claims.

The 2012 Recovery Plan for Utah Prairie Dog includes a section on over-grazing, which we did not see referenced in any of the project documentation. The Recovery Plan provides an example conservation measure of restricting surface disturbing activities and facilities within 0.5 miles of occupied habitat (p. 1.7-4). Proposed troughs within or in close proximity to occupied UPD habitat, as discussed below, are associated with surface disturbance. The Recovery Plan also says that over-grazing can decrease forage availability, which can increase UPD foraging time, and that these effects may be more likely during times of drought or in areas with low plant diversity (p. 1.7-4), both of which may apply to the project area. The Biological Assessment does not discuss the relation of cattle utilization in the project area and forage availability for UPD. A detailed analysis of cattle utilization in UPD habitat is required to determine whether there might be adverse impacts to UPD. Absent this, a *may affect, but not likely to adversely affect* determination has not been justified. Because of these potential effects and uncertainties, consultation with the Fish & Wildlife Service should be undertaken. Project documentation mentions the use of the USFWS IPaC system, but it is not clear whether informal consultation has been undertaken as a result of the *may affect* determination. We request clarification on this matter, and incorporation of the results of consultation with the FWS into the project documents.

It is unclear why the Forest proposes laying the pipeline through occupied UPD habitat rather than routing the pipeline outside of occupied habitat as much as possible. Thus we have proposed this alternative approach above for incorporation into the alternatives analysis for the project. For example, the pipeline could be routed outside of occupied habitat polygons 212g, 212a, and 209t (as shown in Figure 3, p. 10 of the Biological Assessment).

It is also unclear why the Forest proposes placing or replacing troughs in or adjacent to occupied UPD habitat rather than outside of and away from occupied habitat as much as possible. Thus we have proposed this alternative approach above for incorporation into the alternatives analysis for the project. The proposed action includes multiple new and replacement troughs within, adjacent to, or very close to occupied habitat polygons (as shown in Figure 3, p. 10 of the Biological Assessment). As cited above, the EA recognizes the potential for long-term soil degradation around troughs from compaction resulting from hoof action. This issue of concentrated grazing in the vicinity of troughs must be analyzed in relation to UPD, as it has the potential to result in adverse impacts.

B. Greater Sage Grouse

The EA states that “this project would avoid the nesting season by abstaining from placement of the pipeline during the sage grouse nesting period, thereby resulting in no direct or indirect measurable effects” (p. 11). As is the case regarding UPD above, the effects analysis does not address the potential negative effects of cattle grazing on Greater Sage Grouse in areas currently receiving little or no use as a result of the project. Figure 6

of the Terrestrial Wildlife and Plant Resources Biological Evaluation and Specialist Report shows a sage grouse lek in close proximity to a new proposed trough location (p. 22). The potential negative effects of increased grazing pressure around this lek have not been analyzed, despite extensive evidence indicating potential negative effects.

VI. Sensitive Plant Species

The Terrestrial Wildlife and Plant Resources Biological Evaluation and Specialist Report states that there are 4 sensitive plant species within the general area that grow on exposed Tertiary limestone soils. The Report goes on to state: “A field review of the proposed pipeline project revealed that none of these soil types were impacted as a result of the proposed pipeline project. Due to this, no further review is necessary” (p. 13). However, this does not address the potential impact to these plants from cattle grazing in areas currently receiving little or no use as a result of the project. This is a foreseeable consequence of the project that is recognized in the EA, and the potential effects on these 4 sensitive plant species must be analyzed.

VII. Cultural Resources

The EA states: “the project would have no adverse effect on cultural resources in the area” (p. 9). However, this claim has not been substantiated. For instance, no analysis has been provided regarding the proximity of cultural resources to proposed trough locations or to other areas that are likely to receive more cattle use as a result of the proposed action. Increased cattle use has the potential to adversely impact cultural resources, and must be properly analyzed.

From the EA it appears that the Forest contemplates laying the proposed pipeline on top of the ground through sites eligible for the NRHP with a Utility Task Vehicle (p. 9). The cultural resources inventory report states that “UTVs will be going back and forth across site” for each of the three NRHP-eligible sites (p. 8). These three sites each include lithic scatter, which could be adversely impacted by UTV driving (e.g., materials rearranged, scattered by tire action, compressed into the ground, etc.). It is unclear why the Forest proposes laying the pipeline through these sites and subjecting them to UTV traffic rather than routing the pipeline away from NRHP-eligible sites and thus avoiding driving through the sites with a UTV. Thus we have proposed this alternative approach above for incorporation into the alternatives analysis for the project.

VIII. Direct, Indirect, and Cumulative Effects Analysis

The EA states: “the cumulative impact analysis area includes the Showalter well and water conveyance system within the Pines and East Pines allotments” (p. 8). It does not specify the indirect effects analysis area, or whether this is the same as the cumulative effects analysis area. The area specified is inappropriate both for indirect and cumulative effects. As the EA says (cite), the proposed action will spread cattle use to areas currently receiving little or no use. The areas that may be subjected to increased use, and thus novel effects, is much broader than the well and water conveyance system area that is being used for the

cumulative effects analysis area. The effects of increased cattle use in areas currently receiving little or no use must be analyzed as an indirect effect of the proposed action, including effects on soils, herbaceous vegetation (grasses, rushes, sedges, forbs), and dependent wildlife such as small mammals and pollinators.

IX. Conclusion

We are grateful for the opportunity to provide scoping comments on this project. Please let us know if you have any questions about anything contained in this set of comments.

Sincerely,

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