

Southern Nevada District: Mapping Restoration Opportunities Public Input

Last Name	First Name	Organization	Comment Theme	Input Text	The BLM SNDO Incorporated this Input by:
Baca	Mauricia	The Nature Conservancy (TNC)	Groundwater-Dependent Ecosystems	We encourage the BLM to specifically identify groundwater-dependent ecosystems (GDEs) as high priority restoration areas. Over 40 percent of Nevada’s endemic species rely on GDEs for all or part of their water needs. GDEs are also critical sources of drinking water, recreation, economic, and other benefits for people in Nevada.	The BLM SNDO incorporated GDEs from the website https://heritage.nv.gov/programs/wetland-program into our data review and models.
Baca	Mauricia	The Nature Conservancy	Groundwater-Dependent Ecosystems	Using data from TNC in Nevada, as well as data from the LANDFIRE Program, Desert Research Institute, Springs Stewardship Institute, and Nevada Natural Heritage Program, we partnered with the Nevada Department of Wildlife to map spatial GDE data. More recently, we assessed stressors and threats to GDEs in Nevada. The Indicators of Groundwater-Dependent Ecosystems (iGDEs) data are publicly accessible online at: https://heritage.nv.gov/programs/wetland-program , and we expect the stressor and threat data to be available there in the next week as well. The database identifies areas with the highest likelihood of groundwater ecosystems, and where stressors and threats to GDEs are highest due to different risk factors. We encourage the BLM to use these data to consider which GDEs are high priority areas for restoration. Restoration practices in these areas should also be in concert with conservation objectives. Combined, conservation and restoration can improve and sustain the functionality and resiliency of GDEs.	The BLM SNDO incorporated GDEs into our data review and models. We will review the stressor and threat data from https://heritage.nv.gov/programs/wetland-program when the data are available.
Baca	Mauricia	The Nature Conservancy	Climate Migration Corridors	The highest priority areas should be those where restoration success would yield the greatest gains in terms of habitat connectivity and continuity.	Thank you for your comment.
Baca	Mauricia	The Nature Conservancy	Climate Migration Corridors	TNC encourages the BLM to identify climate adaptation corridors as another critical network of lands to restore (and protect). TNC developed the Resilient and Connected Landscapes mapping tool to spatially depict the networks of connected landscapes through which plant and animal species are predicted to move as the climate changes. The mapping tool is available online at: http://maps.tnc.org/resilientland/ .	The BLM SNDO reviewed the climate-adaptation corridors data from the eastern United States Coastal Plain (see http://maps.tnc.org/resilientland/). The BLM SNDO may incorporate stressor and threat data specific to the mapping of climate-adaption passages, when Nevada data are available.

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Baca	Mauricia	The Nature Conservancy	Climate Migration Corridors	Our science team at the Nevada Chapter are developing more specific mapping data of climate adaptation passages in Nevada, such as the Monsoon Passage. We hope these data will be available to share in time for the BLM to include them in the final habitat restoration map.	The BLM SNDO reviewed the climate-adaptation corridors data from the eastern United States Coastal Plain (see http://maps.tnc.org/resilientland/). The BLM SNDO may incorporate stressor and threat data specific to the mapping of climate-adaption passages, when Nevada data are available.
Baca	Mauricia	The Nature Conservancy	Restoration	To minimize the need for future restoration and maximize restoration investments in areas where they will have the greatest positive outcomes, TNC urges the BLM to continue implementing a smart from the start approach to planning and project decision making. A hallmark of this approach is to locate new disturbances, such as energy and infrastructure projects, in areas that have already been disturbed. Avoiding new development in areas with no previous disturbance avoids the need for future restoration following project construction, operation, and decommissioning.	Thank you for your input. This study involves mapping restoration opportunities. This study does not involve siting for development.
Baca	Mauricia	The Nature Conservancy	Restoration	Employing a smart from the start perspective is also important for identifying priority restoration areas. Some disturbed areas with a lower priority for restoration based on the potential for restoration success, habitat benefits, or related factors, may be prime areas for future energy and infrastructure development. For example, a disturbed area near an existing electrical substation could be a smart choice for a future solar energy generation project. TNC encourages the BLM as part of this project or a subsequent effort to incorporate GIS data that show disturbed areas with limited restoration benefit but high potential for smart from the start energy development based on proximity to other critical infrastructure. Displaying these areas relative to higher priority restoration areas could also help inform mitigation planning associated with current and future energy and infrastructure projects. Higher priority restoration areas near disturbed areas with low restoration potential could be primary candidates for mitigation investments from adjacent development.	Thank you for your input. This study involves mapping restoration opportunities. This study does not involve siting for development.
LaRue	Edward L.	Desert Tortoise Council	Wildlife	As a minimum, to identify restoration opportunities for habitats that have the greatest benefit to threatened and endangered species and migratory birds, the BLM should begin its focus on critical habitat and linkage habitats between critical habitat units for the Mojave desert tortoise and other listed species as identified in the scientific literature.	Thank you for your input. This study incorporates critical habitat, wildlife corridors, and listed species' habitats.

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LaRue	Edward L.	Desert Tortoise Council	Wildlife	<p>If restoration is to occur on land managed by the BLM, the lands should:</p> <ul style="list-style-type: none"> - Be based on available tortoise density and distribution data so as to target areas that continue to support substantial numbers of tortoises, relative to our current knowledge [U.S. Fish and Wildlife Service (USFWS) 2022a, 2022b]; - Be located within desert tortoise critical habitat (USFWS 1994), habitat linkage corridors (Averill-Murray et al. 2021), Areas of Critical Environmental Concern (ACECs) dedicated to tortoise conservation and recovery, Tortoise Conservation Areas (TCAs) [critical habitat] identified in the Desert Renewable Energy Conservation Plan (DRECP; BLM 2016), and recent models (Feinberg et al. 2019, Gray et al. 2019, etc.); - particularly where they occur in the above designated areas, select lands recently burned that are known to have supported tortoises prior to the wildfire event; 	<p>The BLM SNDO reviewed the Averill-Murray et al. 2021 report and reviewed the four data sets used in the P. Feinberg et al. 2019 study. The BLM discussed best available desert tortoise GIS data with US Fish and Wildlife Service expert Roy Averill-Murray. The BLM SNDO used the following data sets for the desert tortoise: omnidirectional connectivity, least-cost corridors, and focal areas.</p>
LaRue	Edward L.	Desert Tortoise Council	Wildlife	<p>If restoration is to occur on land managed by the BLM, the lands should: ...</p> <p>be identified, in part, with input from (1) knowledgeable agency biologists, including U.S. Geological Survey (USGS), USFWS, Nevada Department of Wildlife, Utah Division of Wildlife Resources, California Department of Fish and Wildlife, and Arizona Game and Fish Department; (2) desert tortoise researchers; and (3) Mojave Desert plant biologists and plant ecologists,</p>	<p>The BLM SNDO is working with other agencies and the public to identify opportunities for restoration.</p>
LaRue	Edward L.	Desert Tortoise Council	Wildlife	<p>If restoration is to occur on land managed by the BLM, the lands should: ...</p> <ul style="list-style-type: none"> - be withdrawn from mineral entry; - prohibit off-highway vehicle use except when necessary to maintain existing utilities and conduct scientific research; - prohibit development including new utilities, particularly solar fields; - prohibit agriculture unless there are data that, when analyzed, show that agriculture would benefit the listed species that occur in the area; - prohibit the future sale or relinquishment of the land; - secure groundwater and surface water rights; - prohibit grazing in riparian and wetland areas; - provide BLM with sufficient funding to manage and enforce these management designations; and, most important, - give BLM the ability to place permanent conservation easements on these lands so they cannot be “developed” in the future and then have BLM place permanent conservation easements on restored habitats. 	<p>This study does not amend or supplement current resource management plans. However, this study may be used for analysis in future planning efforts.</p>

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LaRue	Edward L.	Desert Tortoise Council	Wildlife	In addition to the Abella and Berry (2016) resource, it is important that BLM use available literature to develop successful restoration techniques (Abella et al. 2015, Chiquoine et al. 2016, Esque et al. 2021). It is equally important that science-based monitoring plans are developed, funded, and implemented to ensure restoration success; that there be money available to implement adaptive management techniques when science-based success criteria are not met; and that the BLM develop (if not already) a database of both existing scientific literature and results of studies resulting from this effort to be shared widely with both the public sector (see list of agencies identified above) and private entities, like consultants, who are responsible for restoration on private lands.	Thank you for your input. This study focuses on mapping restoration opportunities rather than restoration techniques. The BLM SNDO is working with the University of Nevada, Las Vegas; the US Geological Survey; and the restoration community to develop and incorporate new restoration techniques.		
Wilson	Josh	Not applicable	Restoration	Paraphrased from transcript of verbal comments: I am concerned about using genetically engineered seed in restoration projects. And I'm not saying it's [using genetically engineered seed in restoration projects] even the worst idea to do, the problem is they're not recording it, we should be learning, we should document what we're doing and do it, transparently and openly.	Seed that is native and non-GMO (genetically modified organism) is and will continue to be used in BLM SNDO restoration projects.		