

## Attachment 1 - Drought and Water Availability Impact Assessment Guidelines

Follow the guidance below to evaluate impacts related to drought and water availability. BLM offices are not required to use this workflow but should consider all steps identified below.

### A. Determine Landscape Scale:

- Drought and Water Availability Impact Assessments should be completed using a landscape-level approach (refer to 604 DM 1). The term “landscape” is defined by DOI as an area encompassing an interacting mosaic of ecosystems and human systems characterized by a set of common management conditions. The landscape is not defined by the size of the area, but rather by the interacting elements that are relevant and meaningful in a management context. A “landscape-level approach” is a structured analytical method that informs conservation and resource management decisions at multiple spatial scales.
- After determining the relevant landscape scale for the Assessments, offices should document the scale and provide a narrative explanation of the area or a map.

Some questions that can be answered to help in describing the area may include:

- What watersheds exist within the landscape (e.g., the name and 8- or 10- digit hydrologic unit code from the USGS Watershed Boundary Dataset)?
- What is a best description of the landscape scale in a sentence or short narrative?
- What streams or principal aquifers exist in the area?

### B. Assess Drought Severity:

- Step 1 – Review drought indicators and indices on the [U.S. Drought Portal](#).
  - At a minimum, BLM offices should review the [U.S. Drought Monitor](#) (USDM) for the landscape.
  - BLM offices should record the USDM category for the landscape: (Moderate Drought (D1) to Exceptional Drought (D4)) at the timeframes of one year ago, three months ago, and presently.
- Step 2 – Access the Desert Research Institute’s [Climate Engine web application](#) to generate drought assessment reports for the landscape here: <http://reports.climateengine.org/>. This tool was developed for BLM offices to standardize the information we use to assess drought and vegetation conditions at the allotment, field office, or state office scale. Video tutorials that demonstrate how Climate Engine can be used to complete these and other types of assessments are available [here](#).
- Step 3 – Offices should determine if additional drought indicators would provide the level of detail most appropriate to inform the Drought Assessment. Offices may choose to review additional indicators listed on the U.S. Drought Portal depending on the scope, scale, potential impacts, costs, and risks involved in the proposal. The use of multiple drought indicators is encouraged and will add value to the Drought Assessment.

### C. Assess Water Availability:

- Offices should document if and where the following exist within the landscape (consider including a map):
  - Policies, designations, or declarations issued by Federal and State water management agencies in response to drought and water shortages. Examples include drought or water shortage declarations, water-right curtailments, designated management areas, irrigation non-expansion areas, and fully appropriated basin designations.
  - Consumptive uses of surface water and groundwater on the landscape, including points of diversion on BLM-administered lands. Review [U.S. Geological Survey Integrated Water Availability Assessment](#) products (National Water Use Estimates, National Water Availability Assessments, Regional Water Availability Assessments) and the [Western States Water Data Access and Analysis Tool](#) for relevant information.

Examples of consumptive water use categories include but are not limited to:

- Public supply, irrigation, thermoelectric power, industrial, mining, livestock, aquaculture, and domestic.
- Specific uses that may fall within one or more of the above categories include livestock watering, dust abatement, cleaning solar panels, and water for hydraulic fracturing.
- Dewatering for mining activity where the withdrawn water is used beneficially, such as for dust control.
- Non-consumptive, instream, and in situ uses of surface water and groundwater.

Examples of non-consumptive uses of water include:

- Instream flows for designated wild and scenic rivers and wilderness areas, public water reserves (refer to MS-7250, Water Rights (rel.7-118)), and habitat for riparian, wetland, and aquatic species.
  - Water used in hydroelectric projects when the water is not diverted away from the natural confines of the river or stream channel.
  - Water use in fish hatcheries when the outflow is returned in the same quantity to the point of diversion.
  - Water use in some placer mining operations where water is returned to the point of diversion.
  - Geothermal heat pumps where in order not to diminish the source, the withdrawn water is injected or infiltrated immediately back to the aquifer. The water must be returned in the same quantity and quality (excluding temperature change) at a point in proximity to the withdrawal wells.
- Consider the resource values that are the most sensitive to drought and water shortages within the landscape. For example, is or has water been:

- Culturally important in the area, including to Tribes.
  - A source of drinking water.
  - Important for drought/wildfire/climate resilience.
  - Important for fisheries.
  - Directly (through providing a drinking source) or indirectly (through vegetation) important to wildlife or livestock.
  - Directly (swimming, boating, fishing, etc.) or indirectly (providing vegetation for wildflower viewing or reducing dust and erosion) important to recreationalists.
  - Important for subsistence uses (noncommercial, customary, and traditional).
  - Important for mineral extraction or renewable energy.
- Consider the water use requirements of the proposed action.

**D. Analysis:**

If any of the components of the Drought Assessment indicate drought conditions existed on the landscape within the past year (i.e., USDM = D2 to D4), or that water may not be available for the proposal, BLM offices will consider drought and/or water availability as issues or concerns that need to be addressed in the NEPA or land use planning document.

In evaluating impacts associated with drought and water availability, the authorized officer will consider the results of the impact assessments and the potential for the proposed action to reduce the drought resiliency of public lands or amplify or accelerate the impacts of drought on humans and ecosystems.

Based upon this information, the interdisciplinary team and authorized officer can shape the analysis of drought and/or water availability in the NEPA process for planning or implementation actions. Offices should maintain a record of their conclusions.