



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Arizona State Office

One North Central Avenue, Suite 800

Phoenix, Arizona 85004-4427

[www.blm.gov/arizona](http://www.blm.gov/arizona)

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## EMS TRANSMISSION

Permanent Instruction Memorandum No. AZ-PIM-2023- 008

To: District Managers and Field Managers

From: Deputy State Director, Resources and Planning

Subject: Processing Ephemeral Applications and Estimating Ephemeral Production

**Program Area:** Rangeland Management (1020)

**Purpose:** This Permanent Instruction Memorandum (PIM) clarifies how the Bureau of Land Management (BLM) Arizona processes ephemeral grazing applications received from permittees/lessees and provides guidance for estimating ephemeral forage production.

This PIM is preceded by AZ-IM-1995-018, *Ephemeral Grazing Authorizations* (expired on 09/30/1995), which provided guidance for the approval of livestock grazing on grazing allotments designated as ephemeral only and the approval of additional livestock, above the permitted use, on allotments managed as perennial/ephemeral.

**Policy/Action:** Upon receipt of an application for ephemeral grazing (Form 4130-1), the Authorized Officer (AO) is encouraged to respond within 10 days or as soon as practicable. Prior to responding, the AO will consider forage conditions and water availability within the allotment(s) where ephemeral grazing is being requested. A field visit, generally by a rangeland management specialist or range technician, is required to evaluate site-specific conditions. Range staff are encouraged to meet the permittee/lessee on the allotment to estimate the available ephemeral forage and discuss management considerations and requirements for approving ephemeral grazing applications.

An important part of the ephemeral evaluation and approval process is ensuring proper documentation leading to recommendations to approve or deny an application for ephemeral grazing. The Ephemeral Inspection and Evaluation Worksheet (Worksheet), as shown in Attachment 1, will be used by staff to document allotment inspections, provide rationale for recommendations, and the AO to approve or deny the application for use. It is to be completed

for each initial application and for each application for extension. The Worksheet will be filed in the monitoring section of the allotment file with any supporting documentation and photographs.

The following criteria must be considered while evaluating the allotment and documented on the Worksheet:

1. Ephemeral vegetation is present, accessible, and has grown to useable levels by the date grazing use is approved.
  - The AO will consider the available pounds per acre of dried ephemeral forage. Estimates of available forage will be made by sampling (as described in Attachment 2 and calculated per Attachment 3) or professional judgement. Range staff that are new to estimating the dried weight of ephemeral forage are encouraged to take samples, as described in Attachment 2, until they are capable of accurately estimating pounds per acre through professional judgement.
2. All range improvements and livestock facilities needed for proper administration of grazing are properly maintained.
  - Confirm and document the functionality of authorized range improvements such as waters and fencing.
3. Sufficient surface and subsurface soil moisture is available for continued plant growth.
  - Document depth of surface soil moisture accessible to ephemeral forage species.
4. The level of grazing use allows for sufficient annual vegetation to remain on site to satisfy other resource concerns (watershed health, wildlife, wild horses and burros, etc.)
  - On grazing allotments where no resource conflicts have been identified, ephemeral grazing may be approved for a maximum period of 60 days per application. If there are known resource conflicts with livestock grazing (such as habitat for special status species), ephemeral grazing may only be approved for a maximum of 30 days per application.
    - Sonoran desert tortoises generally hibernate in burrows between the beginning of October until the end of March. In categories I and II desert tortoise habitat, ephemeral grazing may be approved for a maximum of 30 days per application between April 1 and September 30 and a maximum of 60 days per application between October 1 and March 31.
  - Initial ephemeral grazing applications will not be approved for less than 15 days.
  - Extensions for ephemeral use have no minimum period of use restriction.

Following the allotment inspection, an estimate of carrying capacity, in animal unit months (AUMs), and recommendations will be documented on the Worksheet. Recommendations will detail the number of livestock and the duration of grazing for each water. If the recommendations accommodate the ephemeral grazing application, the AO then approves the application by marking “Approve Application” and signing the Worksheet. A bill for ephemeral use is then generated in the Rangeland Administration System (RAS) and delivered to the applicant for payment. Communications regarding requirements and restrictions should be made at this time which include:

- Applications for an extension of ephemeral use must be received at least one week prior to the end of the existing ephemeral use period.
- Special management requirements such as livestock distribution, pasture or water rotation, and placement of supplements.
- Maintenance feeding of livestock on rangelands designated as ephemeral only or perennial/ephemeral is prohibited.

If the recommendations on the Worksheet do not support the application for ephemeral grazing, the AO will informally notify the applicant why BLM will not approve their application and allow them the option to modify their application so that it is acceptable or to withdraw their application. If the applicant declines these options, the BLM must formally reject the application in whole or in part by issuing the applicant a grazing decision under 4160. In the grazing decision, BLM will explain why it rejected the application in whole or in part and disclose the applicant's right to protest and appeal the decision (see BLM Handbook *H-4160-1: Decisions, Appeals and Hearings*).

Allotment inspections should be conducted during the approved period of use to ensure adequate ephemeral forage remains available for the remainder of the period and to ensure perennial species utilization remains low (less than 20%). These observations should be considered when evaluating an application to extend the duration of ephemeral grazing.

Applications for ephemeral use (initial or extension) must be received with sufficient time to allow the BLM to compile the documentation required to consider the ephemeral grazing application. Applications for ephemeral grazing not received in a timely manner may only be considered if staff have availability or if ephemeral grazing is needed to achieve specific resource objectives such as to reduce fuel loads or to manage invasive species.

**Timeframe:** This Policy is effective immediately.

**Budget Impact:** No budget impact is anticipated.

**Background:** 43 Code of Federal Regulations (CFR) 4100 defines ephemeral rangelands as areas of the Hot Desert Biome (Region) that do not consistently produce enough forage to sustain a livestock operation but may briefly produce unusual volumes of forage to accommodate livestock grazing and specifies ephemeral as a permitted type of use. Ephemeral forage is defined as annual plant species that are short-lived, usually has one or more generations per year, growing only during favorable periods (following adequate precipitation) and passing unfavorable periods in the form of seeds. Generally, ephemeral forage is only available to livestock for short periods of time which differs from perennial vegetation which is available year-long. 43 CFR 4180.2(f)(2)(xiv) also specifies that grazing on designated ephemeral rangeland is allowed to occur only if reliable estimates of production have been made, and adverse effects on perennial species are avoided.

Land Use Plans identify which allotments are available for grazing and if ephemeral grazing may be considered as a type use. Implementation level NEPA analysis and subsequent grazing decisions are required to authorize an allotment for ephemeral use. The permit/lease is the authorization for ephemeral grazing and ephemeral use is approved by the AO, under an authorization (permit/lease), on the Worksheet.

All permits and leases authorizing ephemeral use will include the following term and condition:

“When forage conditions warrant, livestock grazing may be approved upon application to utilize an ephemeral forage crop pursuant to federal grazing regulations, special management requirements, and other guidance.”

**Directives Affected:** N/A

**Coordination:** This PIM was coordinated with the Division of Resources and Planning and the Solicitor’s Office.

**Contact:** Any questions may be directed to Doug Whitbeck, Rangeland Management Program Lead, at 602-417-9217.



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Gerald T. Davis

3 Attachments:

- 1 - Ephemeral Inspection and Evaluation Worksheet (1 pp)
- 2 - Ephemeral Forage Production Protocol (1 pp)
- 3 - Ephemeral Production Spreadsheet (2 pp)

Ephemeral Inspection and Evaluation Worksheet

Allotment Name and Number: \_\_\_\_\_ Date: \_\_\_\_\_

Initial Application? \_\_\_\_\_ Extension? \_\_\_\_\_

Livestock Kind: \_\_\_\_\_ Proposed Use Period: \_\_\_\_\_

Water(s): \_\_\_\_\_

Other Range Improvements: \_\_\_\_\_

Vegetation:

Perennials (list by growth stage):

Dormant \_\_\_\_\_

Green-up \_\_\_\_\_

Annuals (list species by growth stage and include average height for each):

Cured \_\_\_\_\_

Green-up \_\_\_\_\_

Distribution: Area Wide \_\_\_\_\_ Drainage Channel Only \_\_\_\_\_ Protected Areas Only \_\_\_\_\_  
Other \_\_\_\_\_

Soil Moisture:

Depth \_\_\_\_\_

Potential for Continued Plant Growth? Yes \_\_\_\_\_ No \_\_\_\_\_

If Yes, Estimate How Long \_\_\_\_\_

Resource Concerns/Observations: (e.g. Desert Tortoise, Bighorn Sheep, Recreation)

Carrying Capacity Estimate: \_\_\_\_\_

Method(s) used: Production Sampling \_\_\_\_\_ Professional Judgement \_\_\_\_\_

Observer(s) and Title(s): \_\_\_\_\_

Recommendations: \_\_\_\_\_

Approve Application: \_\_\_\_\_ Deny Application: \_\_\_\_\_ (requires decision)

Authorized Officer Signature: \_\_\_\_\_

## **Ephemeral Forage Production Protocol**

### **Equipment:**

- Frame or hoop (40cm x 40cm, 0.96ft radius, etc.)
  - Frame or hoop size is dependent on forage size and distribution. A 40cm x 40cm frame should work in most circumstances
- Paper lunch bags (minimum 10)
  - Empty bags should be weighed and weight in grams should be written on the outside of the bag
- Spring scale (0-100 gram)
- Clippers (scissors work fine)
- Marker/pen
- Compass
- Camera
- Clipboard (ideally one with internal compartment)
- List of 10 random bearings and paces

### **Site Selection:**

Navigate to water where ephemeral grazing is requested and observe ecological sites and forage conditions while nearing the water. Locate a representative area in terms of ecological site and forage conditions within a mile but not closer than one eighth of a mile of the water (too close may skew results due to trampling and other impacts related to animal congregation). Park vehicle along the road in or near the representative area and prepare equipment. If it has rained or dew is present resulting in moist vegetation, hold off on proceeding with the protocol until the surface of the vegetation is sufficiently dry.

### **Protocol:**

Gather equipment and take 100 paces (1 pace = 2 steps) perpendicular to the road towards the representative area. After your 100th pace, use the compass to identify the first random bearing and take the number of random paces in that direction. As you near the end of your paces, avoid looking at the ground to reduce any bias. Once you've completed your random number of paces, place the frame at the tip of your boot. This will be the first production frame. Clip all ephemeral production in the vertical projection of the frame and place in the pre-weighed bag. Do not include any perennial vegetation, sticks, gravel, soil, or roots. Weigh the bag with the spring scale and write the total weight, in grams, on the bag. Repeat this process for a minimum of ten samples. Lastly, it is recommended that at least two landscape photos of the area sampled are taken and recorded with the production data.

Once all samples are collected, return to the office and dry the samples for 24 hours at 150 degrees Fahrenheit (a drying oven used for wildland fuels is recommended). Once dry, re-weigh the samples and calculate the dry weight of each. Remember to subtract the weight of the bag! Values may then be entered into the spreadsheet in Attachment 3 to calculate pounds per acre of ephemeral forage as well as AUMs for the serviceable area of the water. Variables such as frame size, serviceable acres, percent forage reserved, and percent forage efficiency should be confirmed prior to using the calculations prepopulated in the spreadsheet.