

NEBRASKA TECHNICAL NOTE

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Range and Pasture Technical Note No.16

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The attached Technical Note is on Minimum Standards for Nebraska NRCS Photo-Point Monitoring. A photographic record is a qualitative method for documenting the short-term and long-term effects of a prescribed grazing plan. Permanent photographs of a landscape are useful for visually documenting measured changes.

MINIMUM STANDARDS FOR NEBRASKA NRCS PHOTO-POINT MONITORING

A photographic record is a qualitative method for documenting short-term and long-term effects of a prescribed grazing plan. Permanently located photo points of a landscape are useful for visually documenting measured changes.

This monitoring method is simple to establish and repeat. Land managers can easily adopt this monitoring method for assistance with grazing management decisions. It is also an excellent visual supplement to other quantitative monitoring methods.



When using this method, it is important to:

- 1) identify the date and location within the picture,
- 2) use similar techniques,
- 3) take the picture during the same stage of plant growth,
- 4) take the photo from the same direction and include a portion of the skyline or a reference point on the landscape, and
- 5) maintain consistency in camera type (lens size), film, timing, and associated documentation.

Repeated landscape scale photographs can provide basic documentation of range trend; however, they cannot establish the cause of change in resource conditions. Field notes should accompany the photographs and be relevant to the management objective.

Landscape photos should be taken from the same designated point at approximately the same time of year. Include a portion of the horizon in the photograph. Take the previous year's photographs (or photocopies) to the field as an aid in relocating the photo point and "framing" the photo consistently from year to year.

Materials:

- Witness marker (stakes or posts made of wood, fiberglass, plastic, rebar, or steel)*
- Hammer or post driver
- Camera (digital or 35mm with print film)
- GPS (recommended)
- Compass
- Photo Documentation Sheet and marker or
- GPS-Photo identification software

- 150' tape (optional) and 2 survey pins to secure tape ends
- Spray paint (optional)

**A witness marker or post will help the photographer re-locate the photo point. Witness markers will attract livestock however, which will rub on the marker and trample the surrounding vegetation. Vehicles can also be damaged if the witness markers are driven within 2-3 feet of the ground surface. It is important that the witness post if used, is located at least 20' away from the photo point. Use of a GPS to navigate to the photo point may eliminate the need for a witness post. Other markers that are flush at ground level (such as old disk blades) have been used successfully to mark photo point locations.*

Procedure:

Establish the photo point at a key area.

Mark the photo point with a survey pin or other marker such as a stake. If a permanent stake is used, it should be visible from a distance of 20 feet. If re-bar stakes are used, they can be covered with ¾" PVC pipe for safety and visibility. Paint metal, fiber glass, or rebar stakes in bright colors to improve visibility.

Option: Stretch a 150' tape from the stake in a transect line, securing ends with survey pins. The tape should extend in a direction that captures the key area attributes. Use this transect line to measure further quantitative information relating to the objective such as cover, or vegetative structure.

Record photo information

- Mark photo point with a GPS.
- Record the date, location, compass bearing and management history since the last photos were taken on [NE-ECS-8, Grazing Lands Monitoring Plan and Key Area Documentation](#).
- Use a [Photo Documentation Sheet, NE-ECS-6](#), in all photographs or GPS Photo Link Software to identify the photograph. If using a photo card, lean it next to the stake, marking the beginning of the transect.
- Mark the photo point location on the conservation plan map.
- Take a landscape photograph toward a re-locatable bearing point, such as a tree, blowout, fence post, etc, wherever possible.

Storing the photo record

Download digital photos or process print film of the photo point(s). Make two copies of each photo point. Check to make sure that information on the photo card is legible. If not, copy the key area photo information from the [NE-ECS-8, Grazing Lands Monitoring Plan and Key Area Documentation](#) on to the back of the photograph using an acid free photo marker or adhesive label and affix the label to the back of the print. If the GPS Photo Link Software is available, process the GPS information onto digital photographs. Place prints in acid-free, PVC-free photo sleeves and store one set in the casefile. The other set should be given to the land manager along with a copy of [NE-ECS-8, Grazing Lands Monitoring Plan and Key Area Documentation](#).

Digital photographs and ArcMap: Follow the procedures in [GPS Photo Link Step-by-Step](#) to tie photo points to conservation plan maps created in ArcMap. Digital photos should be saved to the customer folder.

Notes:

- A single photograph from a permanently marked site (fence post, tree, etc.) of a stream crossing, gully, blow-out, head-cut, or other impacted site can be very effective in demonstrating resource recovery or the need to modify current management.
- Finding the location of an old photograph and retaking it can provide information on past use and trend of a site.

Things to remember:

- If the photo plot is difficult to locate, use a witness post. Make sure the photo plot is at least 20 feet away from the post. For all photo points, consistently document the photo plot location with respect to the witness post.
- If using the Photo Documentation Sheet in the photograph, use a light shade of colored paper to reduce glare. Place the photo information sheet off to one side of the frame so as not to obscure the landscape photo.
- Take the photo from the north if possible to avoid casting a shadow into the photo.
- Photos should be repeated on a 1 to 3 year cycle or other regular schedule as outlined in the monitoring plan.
- The land manager should be aware of the location of each photo point so that salt and mineral placements, supplemental feeding, or placement of developments such as tanks and fences do not occur over them.

