

# Volunteer range managers, a list of activities.

Livestock grazing on BLM lands, as has been traditionally practiced, has had a profound impact on the health of our public lands. In order to understand these impacts and work for positive change, I suggest a few simple activities that any volunteer can undertake. I advocate field methods that help you describe in an objective non-emotional way what is going on in your special place and how this is inconsistent (or consistent) with BLM's standards.

If you are interested, join me in some place wild to gather useful information and use it to make a difference.

Thanks

Jim Catlin, Wild Utah Project, 18 Sept 2009

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## Looking after the habitat, what can a volunteer do to make a difference?

While hiking in some place wild, we all have had the feeling that something is very wrong. It just feels wrong and we don't know quite how to accurately describe why or characterize what we might do to fix this. The focus here is to look at one of the more significant factors that might be behind your perception of something being wrong, overgrazing by domestic livestock. To understand more about the grazing, you will need to know in what grazing allotment your special area falls within. Allotments vary in size from a few thousand acres to tens of thousands of acres. Livestock grazing occurs on most state and federal under different management rules. Here our focus is BLM lands. Unfortunately according to BLM, the only time the public can participate in grazing decisions is once in very ten years, when the grazing permit is renewed. Here we are going to challenge this and advocate that you have the same ability to work with BLM as does the grazing permit holder on decisions made each year.

This guide may offer you a few ideas on what you can do. Your input will be most effective when it is objective, the facts observable, and agency obligations clear. The activities presented here offer you help to assess if grazing is doing well or identify habitat problems. None of these activities require that you have a degree in range ecology. All of these activities use simple, easy to understand methods with low cost tools.

This guide breaks volunteer tasks into different activities. Don't be put off by all that is being presented. Just using *one* of these activities can make a difference. You don't have to complete all of these. As you gain more experience and become more comfortable in the field, then take on more activities and add to your ability to influence grazing on BLM lands.

Central to using these activities is a strategy for how you might influence BLM:

1. Send BLM a letter asking to be an "interested party" for a BLM grazing allotment that you care about. They are required to share with you any decisions open to public comment.
2. Visit your special place. When in the field, take notes and make photographs.
3. Share your experience with BLM, your conservation associates, and the media. Talk about things that are going well and factually describe problems. Where needed request that BLM take action.

*"Let's just keep this between us," a bad idea!* Convincing BLM to change range management is one of the toughest things we do. If all you do is phone BLM, I can almost guarantee that nothing will happen. You increase your chances for change if you: **a)** write BLM, **b)** when they don't respond, send letters up the BLM food chain, **c)** let your local newspaper know (write a letter to the editor), **d)** get a reporter to do a story, **e)** get a local government leader to write BLM about your concern, **f)** get others to also write BLM., **g)** take BLM and the permit holder in the field with you, and **h)** take legal action (appeals and lawsuit). Each year BLM meets with the allotment permittee to discuss what grazing and range projects will be conducted in the upcoming grazing season. Ask BLM in writing to be allowed to attend these meetings. The more of these things you engage in, the more likely BLM will be to take the right action. Remember to praise the BLM staff that help you. If habitat is in good shape, please say so to BLM. If the ranchers are following the rules in your allotment give them credit too. **Positive feedback when relevant will help you get your suggestions more seriously considered.**

## **Activity 1, A little office research with BLM**

You will need to get a few key pieces of information from BLM. Don't count on much help from the BLM website. In the Bush years, they gutted almost all grazing management information from the web. Let's hope that this changes in the future.

A phone call and email will often get you what you need. If BLM does not cooperate, you may need to file a Freedom of Information Act request for the records. If you are an interested party, BLM should send you the basics at no charge. Use the website to get the needed phone numbers and mailing addresses.

Here are a few things that you will need to know:

1. A map of the allotment that covers your area of interest.
2. Identify when livestock grazing starts and ends each year. This information is normally part of the grazing permit. This may vary from year to year within the bounds of the grazing permit. It helps to check each year with BLM for the on and off dates.
3. The date when the grazing permit is up for renewal. Once every ten years, BLM gives you a chance to comment on range management in the grazing permit renewal process. Make use of this opportunity.

These are enough to get you started. There is a lot more information that BLM has that can be difficult to interpret, often conflict with the truth, and not that helpful for you. However, there are a few more things that with some help from an experienced person can help a volunteer:

4. Rangeland health assessments. BLM conducts field surveys to see if this allotment meets their ecological standards.
5. Last environmental analysis or EIS used in renewing the grazing permit.
6. An allotment management plan for the allotment.
7. "Utilization" monitoring locations and data. This tells you where BLM does this annual monitoring and just what percent of the forage BLM thought was used.

Don't be afraid to contact experts in the conservation community to get help on how to understand BLM documents. We have some great people who have decades of experience and welcome your help. More is said about recruiting expert help later in these document.

Send the appropriate BLM office a letter that requests you be recognized as an interested part on the allotment you cite for in any future management actions. Send a thank you note to BLM for anything they provide.

## Activity 2, A new view of wild habitat. (Develop that critical eye)

Our sagebrush steppes, riparian zones, and pinyon juniper forests for the most part look just like what we saw when we were growing up. Much of the major degradation occurred decades ago on most places and we have no experience of what this habitat looked like before this change. Because of this, we have learned to accept today's conditions as the norm. We need to question that belief and try and visualize what these wild places looked like when the Anasazi were here and before livestock became a major use.

This comparison between what should be there and what we have today is a key concept in range management. To see what species of plants should be there and how much, look for lesser impacted areas with a similar soil and climate. Here is a list of possible places you might use for comparisons:

1. Relict (untouched by humans) reference areas that have never seen livestock. These are very very rare.
2. Fenced roadsides where cattle have been excluded for many decades.
3. Private lands where the landowner minimized livestock use
4. State and National Parks absent of livestock grazing.
5. Other fence line comparisons between grazed and lesser grazed areas.



Less grazing between road and fence.  
Note road influences hinders this comparison.



Dead shrubs, tumble weed dominate

Photos: Ronni Egan, Valley of the Gods, Utah, May 2009

OK, you just can't find a nearby ungrazed place. Well, don't give up yet. Experts may have created a description of what your habitat should be like at its ecological potential. This is a little more technical and we have a later activity on how to find and interpret this information. The National Resources Conservation Service produces Ecological Site Descriptions that when linked to a soil survey may give you a good comparison. See page 12 (Action 8) for information on how soil surveys can help you.

As you walk taking field take notes and photographs, here are a few simple things to look for:

*The good:* Look for expected native forbs and native grasses. Especially look for those that cows favor: Indian ricegrass and bluebunch wheat grass should be almost everywhere in many times of habitat. Look for biological crusts in the spaces between shrubs. Look for lots of litter and other ground cover.

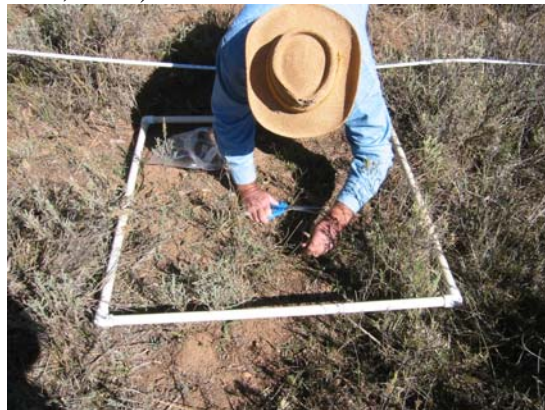
*The bad:* Look for unwanted exotic plants such as cheat grass, non native thistles, tumbleweed. Look for over-grazed plants, bunch grasses that are now merely stubs and over-eaten shrubs. See if Kentucky blue grass or snakeweed dominate the site. Domination by these species can indicate a loss of native bunch grasses.

*The ugly:* See how much bare ground there is. If the site is half bare ground or more, in most habitats, this is an excessive amount of bare ground and the area is vulnerable to excessive erosion. Look for signs of recent active erosion. Plants on soil pedestals, fresh gullies, and newly deposited soil are some indicators. Look for wind as well as water erosion.

This is one more example of a comparison of habitat near its potential with a site that sees heavy grazing each year (Wasatch Cache National Forest, Utah)



Twin Creeks, Logan Canyon. Note the absence of bare ground. This photo was taken in a drought year. Note plentiful grass production even in a drought.



Similar sagebrush habitat in the North Rich Allotment (Mill Hollow). Note bare ground between shrubs and the lack of grass seed heads in the few grasses that grew.

In your field notes be objective and description. For example your notes might say, “just inside the allotment fence on the Harris Wash Road, I walked several 100 ft transects among the sagebrush community. I observed that most Parry's Beardtongue Penstemons were on two inch pedestals which showed recent erosion during the last storm. Fresh silt was deposited under nearby shrubs from wind deposition. Using the point transect method, I measured that this area has about 65% bare ground. Almost no litter can be seen between the shrubs. Based on the nearby reference exclosure, this area clearly does not meet rangeland health standards for erosion and plant community composition and production.”

### Activity 3, Bare dirt is bad

It turns out that the amount of bare ground present is a very significant ecological indicator for most habitats. In most soils once the amount of exposed soil exceeds about 25%, serious erosion can rapidly take away a millennia of soil nutrients. BLM monitoring rarely measures bare ground even though it is one of the single most important things to measure. Here is a simple and very accurate method you can use to measure this.

Transect line sample. (You will need a 100 foot tape and a thin rod)

1. Stretch the 100' tape in a straight line (transect) at a location that is typical of the area.
2. Every two feet, place thin rod vertically against the tape. Let gravity guide where it reaches the ground
3. Write down each occurrence of bare ground (soil) or cover. I use as a symbol for counting four vertical lines than the fifth that crosses the other four. Here are some things that are considered ground cover: plant stems coming from the ground, litter that is stuck to the ground, rocks larger than ¼ inch in size, biological crusts, and moss. If litter is there but a water flow could move it, don't count this as litter.
4. You should have fifty data points. Take the total number of bare ground hits and divide that by the total number of observations that you made. The results will tell you how much bare ground is present. For example, if you have 50 samples and 18 of them are soil (bare ground) then that site has 38% bare ground. Now you have some hard facts to give BLM.

This method is a simplification of a monitoring method published in "Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems." See the library page for the full citation. This interesting publication is free on the web.

- Tools needed:
- a. Thin metal rod about two feet long, (stiff wire might work OK)
  - b. Measuring tape, 100'. This costs about \$29
  - c. Notebook and pencil
  - d. Digital camera (optional)

You can buy a really nice fiberglass tape from Forestry Suppliers, Inc by mail order, <http://www.forestry-suppliers.com/>

## Activity 4, Punctuality counts. Take attendance.

Grazing that starts too early in the season or continues too late can cause serious long term problems. Based on the grazing period that the grazing management allows, we can measure if grazing is happening too early or late. This is very important. Good grazing operators follow the rules. Here is your chance to check to see if this occurs.

A few cattle that enter early or stay late can do considerable damage. This is a problem that we have seen in a number of places. Plants eaten too early will decline in health over time. Late grazing also prevents plants from recovering. BLM claims that they can manage as promised. Taking attendance will be important to show that they can really deliver in this important promise.

1. Find out first from BLM when livestock enter your allotment and when they leave. The day livestock enter is called the “turnout date” The exact days that cattle are on and then off may vary from year to year because of weather and condition of habitat. Check each year with BLM to see if these dates have changed.
2. On the day before turnout, visit the allotment and see if the livestock are already there. If they are, this is a violation of the permit.

Livestock congregate in favorite places. Look at streams, other water sources, salt blocks, and places with lots of grass. You don’t actually need to see the cows (but it helps if you do). Signs of recent use (fresh cow pies and foot prints) made in the last day or so offer good evidence.

One more piece of information can help BLM. In some allotments, several ranchers graze their herds together. If you see a problem, it helps to know whose cattle are the problem. If you can, get a look at the cows and identify the brand. Also note the color of any ear tags on cattle. Sometimes a number of different ranchers use the same allotment and having information on brands and ear tags will help BLM identify who the problem grazer is. The BLM can help you with brands and what they look like.

3. On the day after the grazing period ends, visit the allotment and see if cattle are still there. Again, livestock still present after the end of grazing data constitutes a permit violation.
4. Write a note to BLM praising the rancher and BLM if the rules are followed. If livestock are there outside the permitted period, write to BLM and ask that they take action. Request that BLM record this violation in their records and issue a “trespass violation” to the rancher. Ask that BLM bill the rancher for the additional grazing used.

Tools: map of allotment (BLM should be able to help)  
binoculars  
camera, digital (optional)  
notebook  
GPS (optional) to help you get around.



## **Activity 5, Good grades are important. Check to see if BLM makes a passing grade.**

The Grazing Response Index uses three factors to assess the effects of grazing on plants during the current year. These three factors are “frequency” or how long livestock graze, “intensity” or the percent of the grasses and forbs that are taken, and “opportunity” for the plant grow before grazing or recover after grazing. Another term, utilization is used when talking about intensity. Utilization is a measure of the amount (fraction) of grass and forbs that grazers use in one growing season.

National Forest Service staff and range scientists in Colorado created this grazing scoring system for use by folks like us and for those that graze.<sup>1</sup> You can download their two page guidelines on: [www.fs.fed.us/r2/gmug/policy/Range/GRI\\_plant\\_evaluation.pdf](http://www.fs.fed.us/r2/gmug/policy/Range/GRI_plant_evaluation.pdf)

Here’s my personal opinion about this scoring system. On the plus side, there is nothing else out there like this. This lets you assess if grazing in the past year is going to improve the land, keep it the same or degrade it. It is fairly simple and requires minimal training to use. It is quick and generally the results are consistent if conducted by an independent observer. Agency folks will have a hard time refuting your use of this if you are fair and objective. On the minus side, I believe that the level of utilization it allows is too high. As a result, it is likely to underreports bad grazing problems. In addition, this method has not been tested to see if ecological needs are met. Lastly, the assessment of “opportunity,” can be subjective and may require a bit more knowledge to use well.

Each factor has a score from -2 to +2 depending on conditions you see. The factors are then added together and the resulting overall score is the grazing response index. A positive overall score indicates that management of grazing is beneficial to the health of the land. A negative score indicates that grazing use and management is harmful. A zero score is neutral. The method is described more fully on the next page.

Let’s give this a test run on an example allotment for which we just showed some photos:

North Rich Allotment, Wasatch Cache National Forest (at the head of Logan Canyon)

Grazing period: June 24 to September 30<sup>th</sup> each year

Grazing intensity (Utilization): 62% average in five areas. (Use agency data if you can.)

Opportunity: See photo on right on page 7, no recovery given during growing season.

For this allotment the Frequency score is -1, the grazing intensity is -1. The opportunity score is -2. The overall score is a sum of -4. This indicates that continuation of this grazing program will harm the land.

The agency can give you the amount of time the allotment is grazed. You can conduct you own utilization monitoring or you can rely on agency data. Note that BLM utilization monitoring consistently underreports the amount of forage utilized.

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<sup>1</sup> The grazing response index was developed by Dr. Roy Roath, at Colorado State University and is being promoted by the Forest Service, Natural Resources Conservation Service, and BLM. Note that that this has not been assessed by independent scientists to see if when followed, the results lead to sound ecological conditions.



## The Grazing Response Index (GRI)

The *Grazing Response Index* developed by Dr. Roy Roath, Colorado State University Cooperative Extension Range Specialist, is a short-term monitoring method that was developed to assess the effects of grazing during the current year and aid in planning the grazing for the following year. The GRI is based on general assessment of the current grazing use. It involves three concepts related to plant health in evaluating the impacts of grazing. These are the frequency of defoliation, the intensity of defoliation, and the opportunity of the plant to regrow after being grazed.

**Table 1 Frequency Scoring**

**Frequency** is the number of times forage plants are grazed during the grazing period. It is dependent on how long plants are exposed to grazing animals. Seven to 10 days are required for a plant to allow growth enough to be grazed again during late spring and early summer. Grazing the same area over an extended period of time allows animals to select the most preferred plants to their detriment. Grazing plants three or more times during a growing season reduces productivity and weakens them. A simple way to estimate how many times plants were, or will be, defoliated during a grazing period, is to divide the number of days in the planned grazing period by 7 or up to 10 if growth is slower. An index value of +1 to -1 is assigned as shown in Table 1. A value of +1 indicates plants grazed less than twice would respond positively to grazing. Zero is neutral and -1 indicates plants have been grazed three or more times and is excessive.

Number of Defoliations	Value
1 (7 days/7 = 1)	+1
2 (14 days/7 = 2)	0
≥3 (≤21 days/7 = ≥3)	-1

**Table 2 Intensity Scoring**

**Intensity** is the amount of leaf material removed during the grazing period. The primary concern is the amount of photosynthetically active material remaining for the plant to recover from defoliation. A plant that has relatively more leaf area remaining after grazing is going to respond better than one that has less leaf area. The intensity of grazing use is linked with the relative stocking rate in the pasture.

Level of Defoliation	% Used	Value
Light	<40%	+1
Moderate	41-55%	0
Heavy	>56%	-1

**Table 3 Opportunity Scoring**

**Opportunity** is the amount of time plants have to regrow after the grazing has taken place. The plants must be able to fully store energy at some time during the active growth period before the next scheduled grazing period. Therefore, it is critical that your grazing management program allows the key forage plants the opportunity for full recovery after being grazed. Determining opportunity is a judgment call based on the appearance of vegetation at the end of the growing season. If plants appear ungrazed or barely grazed or plants had full opportunity for growth before grazing, use a value of +2. If plants were grazed, but regrew fairly well after grazing then give a rating of +1. If an area was heavily used, with no opportunity to grow or regrow assign a -2.

Opportunity for Regrowth	Value
Full Season	+2
Most of Season	+1
Some Chance	0
Little Chance	-1
No Chance – continuous season-long grazing	-2

The overall GRI rating is obtained by adding the values for the frequency, intensity and double the opportunity value. A positive value indicates that the grazing management was beneficial to the health, structure and vigor of the plants. Conversely, a negative value indicates that the grazing management being monitored was harmful. A zero rating is neutral.

Source: [gf.state.wy.us/wildlife/nongame/LIP/BestMgmtPractices/GRI.pdf](http://gf.state.wy.us/wildlife/nongame/LIP/BestMgmtPractices/GRI.pdf)

## **Activity 6, Mowing a very small lawn. How much is there for cows?**

In most cases sagebrush habitat should produce lots of grass when in top condition. Here we are going to learn how to measure this and compare our measurement against what should be there.

Warning note. You will only clip a few ounces of grass typically. However, don't do this where it interferes with BLM monitoring. Don't do this inside an enclosure or BLM protection cage without their permission.

Here are the simple steps:

1. Make a sample frame from PVC pipe. This costs a few dollars to buy straight pieces and corners. I did not glue my corners and travel around with it in my pack or car. I made mine 37.2 inches on a side as measured on the inside of the frame. The reason for this funny size is that it makes converting your measures in grams into lb/acre very very easy.
2. In your allotment, find a place that seems typical for the allotment. Ask BLM where they measure utilization. Go to those same places.
3. At the end of the grazing season (when livestock have been removed), visit your allotment with your frame. Choose one or more typical places. An optional step includes taking a photo of your location and noting the GPS location.
4. Clip all the grass plants inside the frame and put these in bag. In the field, mark the bag with the date allotment name, and location where you sampled using a Sharpie pen. Boy, have I regretted it when I did not mark the bag correctly.
5. At home, open the bag and let it stand to dry in the air for a week or more.
6. Now you become a scientist. You will need to have access to a scale that can weigh to the nearest gram. I use a very simple field scale from Forestry Supplies that cost \$27.
7. Weigh an empty sample bag. You will be deducting this weight from your measure.
8. Weigh your dry sample and record the total weight in grams. Subtract the empty bag weight and record this.
9. Multiple the measure by 100 and you have converted the gram weight of your sample into pounds of grass per acre. This unit of measure (lb/acre) is the standard that BLM uses.
10. Compare this with what should be growing on this site. Most shrub communities should have about 300 lb/acre of grass growing for really dry places up to 1,500 lb/acre for wet sagebrush communities. To know exactly what your site should be, see Activity 8.
11. Most places we have measured that are grazed for most of the season have about 50 to 100 lb/acre of grass. So you should expect to record a low number. Any number that is less than 200 lb/acre indicates that for most shrub habitats the productivity of the site is impaired. If this is the case then BLM is most likely breaking a law. This measurement helps you to factually report this.

Required equipment:

- clipping frame (37.2"X37.2")
- scale, 100 gram max, 1 gram accuracy, hanging
- bags, 1 gallon ziplock
- Sharpie pen
- Optional, GPS, camera, clipboard

## **Activity 7, What are the rules that BLM needs to follow?**

During the Clinton Administration, each BLM state office developed standards and guidelines for healthy rangelands. This was a major improvement and is the standard still used today. Utah's standards were published in 1997 and require that an allotment meet four standards (soil stability, properly functioning riparian areas, native species maintained, and water quality standards).

For a volunteer, the part of these standards that begins with "as indicated by:" is the most useful. For example under standard 3, one indicator requires that BLM manage so that the site has the "appropriate amount, type and distribution of vegetation reflecting the presence of the desired plant community." Comparing your site (grazed) with the right reference can support your conclusion. In the case where herbaceous plants are few and some species missing, this site does not meet Standard 3. The Utah standards and guidelines are attached. I won't go into these in more detail here, but a lot more can be said to help you use these good standards.

BLM uses three assessment methods to determine if a site meets standards. For streams they determine if the riparian area is in properly functioning condition (PFC) We have real problems with BLM's riparian PFC method. It incorrectly focuses largely on erosion and ignores other important riparian attributes. BLM's PFC assess a site can withstand a high stream flow and not have excessive erosion. Well, that is OK but not enough. This does not account for, say, the needs of fish and riparian dependent birds.

For areas away from streams, springs, and ponds; BLM uses another assessment method, Interpreting Indicators of Rangeland Health. This method too underreports problems on grazed lands. Each year BLM reports on the ecological status (health) of its grazing allotments, of which Utah has 1,400. In 1998, BLM reported that out of the 800 allotments in Utah they had been assessed, only ten allotments were not meeting standards or moving towards meeting standards. I would argue that most allotments show strong evidence of impairment and most don't meet standards.

The good news is that if BLM does conclude that the allotment is not meeting standards and grazing is a factor causing this, then BLM has a one year to do something. The BLM's action must lead to the standard being met in the near future.

One more thing about multiple use that you may find ironic. We can argue that continued overgrazing violates multiple use. Buried in the enormous sentence defining multiple use (43 USC 1701) is a measure that holds BLM accountable. This measure requires that BLM ensure the "harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment. . . ." I argue that if BLM perpetuates grazing at the level where habitat today shows damage then this constitutes a permanent impairment of the land.

## Activity 8, Talking like an expert

What should the ecosystem be like in the allotment where you have an interest? Ronald Reagan stated as foreign policy “trust but verify.” Here we will talk about how you can use independent information to augment your work and verify agency claims. Feel free to call on those in the conservation community to help you with technical activities.

One of the best places to learn about what habitat could be like if at its ecological potential comes from the Natural Resources Conservation Service soil surveys. Known earlier as the Soil Conservation Service, this agency, long dedicated to helping agriculture, now looks into describing the potential for ecosystems.

Soil surveys produce a map that shows classifications of areas into different soil characteristics. The good news is that you don't need to know a lot about soils to benefit from completed soil surveys. Soil surveys contain descriptions of plant communities that were likely to have been found at a time before the Europeans arrived. These descriptions of pre-settlement plant communities are used as a starting place to describe this ecosystem at its potential. These plant community descriptions can be also used by us to describe “desired plant communities” -- a measure BLM uses to determine if habitat meets rangeland health standards.

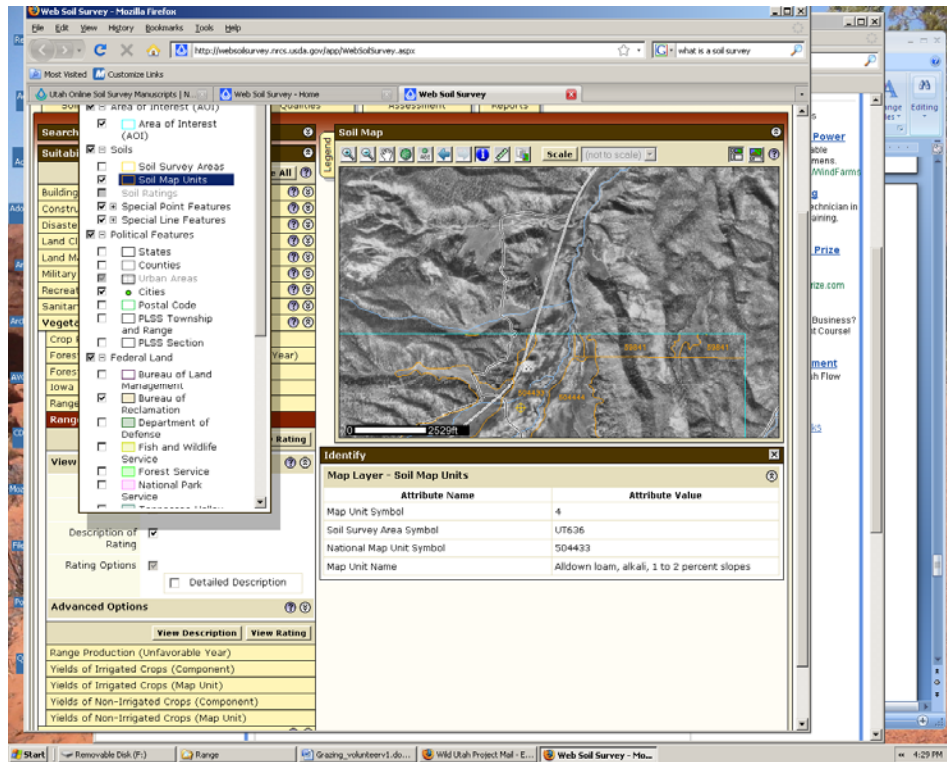
This is new territory for most of us and don't be afraid to have BLM staff or NRCS staff walk you through this for your allotment. Here are a few steps to take:

1. For your allotment, identify the completed soil survey. Google NRCS and published soil survey for your state. Download the soil survey. These can be big (20 meg).
2. Soil maps may be separate. Use the map on the internet to identify the specific soil map units for your area of interest. This is a web soil survey that will let you identify the soil map. See the next page for a screen shot of the web soil map service. Some places don't have a completed soil survey and you may be out of luck.
2. In the back of the soil survey there are a number of tables. Use the “rangeland productivity and characteristic plant communities table” to find your soil map symbol and its ecological site name, dry weight annual plant production (in lb/acre) and percent composition (by annual production) for characteristic vegetation. These values reflect the habitat at its potential.
3. Compare the production for native grass against what you measured when you clipped, dried and weighed you sample.

Here is one example. The soil survey used is the UT 686 GSENM soil survey.

For my area of interest, the soil survey map said that my pasture is a semidesert loam (Wyoming fig sagebrush) ecological site with a soil map symbol 5142. The tables in the soil survey that for this ecosystem type for a normal precipitation year, this site should annually produce 675 lb/acre of herbaceous and woody plants each year. Sagebrush and other shrubs account for 40% of this. At ecological potential, grasses should produce about 300 lb/acre (or 45% of production). On the next page is an example of how to determine if you are in a normal year or a dry (or unfavorable) year. The soil survey has unfavorable plant production estimates that are lower than for a normal year. You should use the right value that reflect the conditions when you clipped you frame.

*Example screen shot of the web soil survey data you can see.*



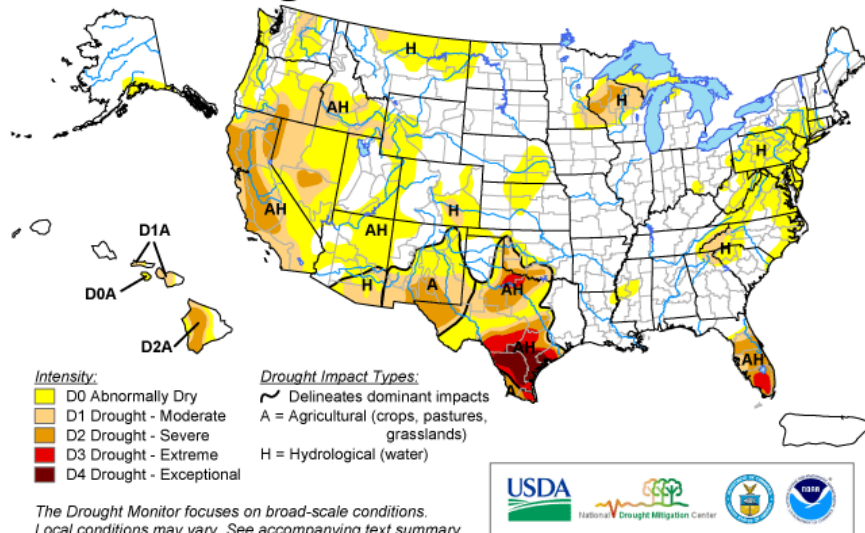
*Example, checking for normal precipitation years or unfavorable (drought)*

This map from the National Drought Monitor web site, identifies where droughts are occurring.  
<http://drought.unl.edu/DMM/MONITOR.html>

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## U.S. Drought Monitor

April 28, 2009  
Valid 8 a.m. EDT



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



Released Thursday, April 30, 2009  
 Author: Brad Rippey, U.S. Department of Agriculture

<http://drought.unl.edu/dm>

## Activity 9 Fighting Postal fraud, our version of neighborhood watch

With minimal training, you can be qualified to be a certified cow counter. (Be patient, I will get to postal fraud). It turns out that knowing just how many cattle actually graze is a very important issue. If we don't know just how much grazing actually occurs, then we have no way of making coherent decisions. Based on our past surveys, fewer cattle typically graze than both BLM and the rancher report. While ranchers and BLM won't admit to creating false records, we suspect that there is a benefit to BLM and the rancher for doing this. Over paying for grazing keeps the recorded amount of grazing high which increases the resale value of the allotment. In most cases, even with fewer livestock, we still see serious habitat problems in most allotments. We can't make rational decisions to fix these problems without know what grazing occurs.

This activity describes just how you can conduct a census of livestock in your allotment:

1. Chose one day when you and a number of volunteers can survey your entire allotment. These allotments can be big and having a dozen volunteers is often a good idea. Of course, the survey should be conducted when livestock are in the allotment.
2. Divide the allotment into zones, the area that one team can cover by foot and vehicle in one day. Prepare a field map for each survey team's zone. Include on the map all pasture fences, water sources, and streams.
3. Each team should survey its zone and record on the map the number of animals seen, their location, and the time seen. Recording time helps with double counting issues when the same group of cows is seen twice (they move you know) at different times of the day in different places. Visit water sources and record if you see recent sign of livestock.
4. The survey has to be completed in one day. You can't comeback a few days later and complete another area. Livestock move, and you might either miss or double count livestock.
5. At the end of the grazing season, send a letter to the BLM and ask for their records on grazing for the period you conducted the survey.. The permit holder sends reports on their grazing to BLM a few weeks after the season end. These reports are called "actual use reports". Determine from them, just how many livestock should have been present at the time of your survey. Match this number against your survey.
6. When you have analyzed your survey data, send a note to BLM asking them to correct their grazing use report (if wrong), and to refund any money to the rancher if they overpaid.

As mentioned, most of our surveys found that there are fewer livestock grazing than are reported by BLM or the rancher. In some cases, has promised to reduce the number that graze in order to address a problem. Check BLM's numbers and make certain that they this reduction is below the number you saw and not just a paper record about phantom cows. We have seen in a number of cases that in a grazing permit renewal when BLM claims to reduce numbers, there may not be a *real* reduction in the number of animals grazing.

In cases where few livestock graze than are reported, BLM's issuance of a grazing bill each year to the rancher is based on known false information. Because BLM sends this fraudulent bill by post, they are practicing mail fraud. Title 18 USC Section 1001 makes it a crime for any person knowingly and willingly to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction." Keep a record of your survey and any communication you have with BLM. You will need these documents should BLM fail to correct their records and continues to mail fraudulent bills.

## Activity 10, Rapid Stream - Riparian Assessment

Especially in the west, riparian areas are one of the most important habitat. They are also the most preferred place for cattle and often more impaired than other habitat. Riparian areas are often the best place to demonstrate the impacts of grazing. Try and take a reporter, your neighbors, agency staff, or the rancher to your reference area and streams in the allotment.

There is a special separate exercise that shows you how to make riparian assessments. We will not repeat this here.

Since BLM's method to assess the health of streams (Properly Functioning Condition assessments) seemed faulty, we asked ourselves just how should this be done. We assembled a team of scientists, and the result is a method based on wildlife needs to objectively assess the health of streams. The method is called Rapid Stream and Riparian Area, and Great Old Broads was central in developing and testing this new method.

The users guide is on our website at: [www.wildutahproject.org/resources](http://www.wildutahproject.org/resources). Download the rapid Stream-Riparian Assessment users guide.

We have a multi-day training class for volunteers that teaches the basics of riparian ecology and how to conduct a survey using this method. It isn't possible to adequately cover how to use this method here. What I will describe is how you can use surveys you conduct as part of your work -- in an allotment that has streams. Streams that flow all year (perennial streams) are preferred. Check with BLM for any PFC assessments. Check where they did these surveys and plan on visiting their survey sites plus more if you want to.

This survey is strongest if you can find a nearby stream that is similar but ungrazed. This is a real challenge but worth the effort to locate. Conduct a survey in the reference (good condition) stream first. Then conduct surveys in the grazed streams.

Make certain that you upload your RSRA survey data to our on line database for this. This is now under development and will soon be available for you.



## Activity 11, Learn your plants, make you own field guide.

Learning which plants should be present in your interest area, what plants are problems, and how plants relate to the ecosystem is fascinating and will help you make your case. Plant identification of every plant requires an expert and can be very hard to learn. The good news is that you only need to learn to identify a few plants that are the more important habitat indicators.

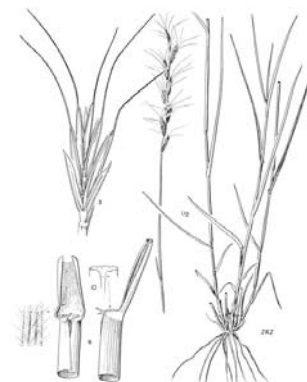
Plant identification continues to a weak area for me. So, for my favorite allotment, I put together a plant guide (in the form of a powerpoint). Using a list of expected plants I got from BLM and NRCS, I searched on the web for descriptions of these plants.

Use online sources to get images and descriptions of the plants found in your allotment. USDA has a national plant data base, [www.plants.usda.gov](http://www.plants.usda.gov) For Utah range plants, Utah State University has some information, <http://extension.usu.edu/rangeplants/>

Plants are called increasers when their relative abundance increases because they are tolerate of livestock grazing. Decreaser plants become fewer when influenced by livestock grazing. Exotic plants are plants not native to a site. Invasive plants are normal unwanted plants that can dominate a stressed habitat. BLM monitoring often uses a three or four character symbol to identify plants. Add this information to your field guide. Below is an example of a page from my field guide for the Duck Creek Allotment.

### Bluebunch wheatgrass

- *Pseudoroegneria spicata* (Pursh) A. Löve ssp. *Spicata*
- Growth form: bunch grass
- Symbol, National Plant DB: PSSPS
- Other Symbols: BLM: AGSP
- Palatability, livestock: high
- Decreaser, key species in most habitat
- In many habitats should be the dominate grass.



## **Activity 12, I'm mad as hell and won't take it anymore!**

You have now been in the field, made many calls to BLM, and submitted excellent comments. For some reason, BLM issued a decision that seemed to ignore what you provided. Join the club. Before you take the next step, you should see some help from a supportive expert in range management.

I did not spend time here on just how to comment on BLM grazing decisions. My experience with BLM is that no matter how extensive your field work, analysis, and comments BLM rarely modifies a grazing permit because of comments from the conservation community. You should still comment and get on record. Your participation can help in other ways in the future.

An administrative judge with the Department of Interior's Office of Hearings and Appeals said that grazing decisions are the toughest of any BLM decision for the conservation community to contest. The burden of responsibility falls on those who challenge BLM. In order to prevail, you need to know everything BLM knows about this allotment and more. This is a daunting task. The good news is that there are experts out there in the conservation world that really know their stuff and can help you and Interiors administrative hearings are fair.

An earlier excellent publication "How Not to be Cowed" focuses on the administrative process. Now out of print (and perhaps should be reprinted), this useful booklet describes how BLM makes grazing decisions and the process for interested citizens to follow in an appeal.

The good news is that there are some great experts in this area. Conservation veterans with Natural Resources Defense Council, Western Watersheds Project, Advocates for the West, Western Resource Advocates, Center for Biological Diversity have successfully contested a number of BLM grazing decisions. There are scattered around. Great Old Broads, Grand Canyon Trust, Wild Utah Project, Wild Earth Guardians, and the Sierra Club are a few more organizations you can approach to ask for help.

You are not alone in your concern for the health of our public lands, and now is the time to call on those with expertise in this field of science and the law. There are a number of legal strategies and political tactics that you can use.

Because filing an appeal or a lawsuit is so exhausting, this should be the course of last resort. The activities described earlier are more within the scope of most volunteers and are often more likely to influence the BLM. It is far easier to work with the press on this issue than wrangle with BLM lawyers. The irony is that too often even when you when an appeal or lawsuit, the decision goes back to BLM and, in the interim, grazing continues largely unchanged. An appeal or lawsuit needs to be part of a larger long term campaign to bring real and permanent change.

## Activity 12, Some library reading

Wald, Johanna, Ken Rait, Rose Strickland, Joe Feller. 1991. How Not to be Cowed., Livestock grazing on public lands: an owner's manual, Natural Resource Defense Council and Southern Utah Wilderness Alliance.

BLM's standards for rangelands (Utah)

[http://www.blm.gov/ut/st/en/fo/vernal/grazing\\_/rangeland\\_health\\_standards.html](http://www.blm.gov/ut/st/en/fo/vernal/grazing_/rangeland_health_standards.html)

BLM's tools for assessing if standards are met [/www.blm.gov/nstc/library/techref.htm](http://www.blm.gov/nstc/library/techref.htm)

Grass and shrub communities: download technical reference 1734-6

Streams: download technical reference 1737-15

Ponds & lakes: download technical reference 1737-16

How BLM conducts their monitoring:

1734-3 Utilization studies and residual measurements,

<http://www.blm.gov/nstc/library/techref.htm>

Ecological site descriptions (what a specific place would be like when at its ecological potential)

Natural Resources Conservation Service electronic field office technical guide (eFOTG):

[http://efotg.nrcs.usda.gov/efotg\\_locator.aspx?map=UT](http://efotg.nrcs.usda.gov/efotg_locator.aspx?map=UT) Choose a county, then on the left site under eFOTG select section II, F. ecological site descriptions, then the region. A list of each of the Ecological Site Descriptions will appear. Match these to your local by way of a soil survey. Other sites you may want to visit include: <http://esis.sc.egov.usda.gov/>  
<http://www.nrcs.usda.gov/technical/efotg/>

How to be a scientist: Line point intercept transect survey method (pgs 8-13)

Herrick JE, Van Zee JW, Havstad KM, Burkett LM, and Whitford WG. 2005.

Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems, Volume I: Quick Start. In *Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems, Volume I: Quick Start*, eds JE Herrick, JW Van Zee, KM Havstad, LM Burkett and WG Whitford Tucson, Arizona: The University of Arizona Press. (free on the web)

How to learn your range plants:

[www.plants.usda.gov](http://www.plants.usda.gov)

Utah range plants - <http://extension.usu.edu/rangeplants/>