Eureka County Concerned About Misuse of Drought to Reduce Livestock Grazing

Prepared by Jake Tibbitts, Eureka County Natural Resources Manager

Eureka County continues to be concerned about unjustified and arbitrary closures of livestock grazing in certain areas under the excuse of drought. BLM has developed Drought Management EAs in each district and a statewide Nevada Drought Handbook. More and more allotments are receiving livestock grazing closures because of drought. However, there are different types of drought and we contend that many of our rangelands are not experiencing the drought effects due to well-timed rainfall events.

There is a general misuse of and reliance on the US Drought Monitor (USDM) in justifying grazing restrictions. The various BLM Drought Management EAs defines drought as:

- A prolonged chronic shortage of water, as compared to the norm, often associated with high temperatures and winds during spring, summer, and fall.

- A period without precipitation during which the soil water content is reduced to such an extent that plants suffer from lack of water.

An area can be in drought because of lack of snow and streamflow but well-timed precipitation events often result in normal to above normal vegetation conditions. Simply put, the rangeland forage in many areas across the state is normal to above normal due to spring and summer rains and the second definition of drought (vegetation conditions) is not occurring. We have seen specific examples of ranchers being forced into so-called "voluntary" grazing reductions or Full Force and Effect decisions based on the area being in drought while the rangeland conditions on the ground do not support that conclusion.

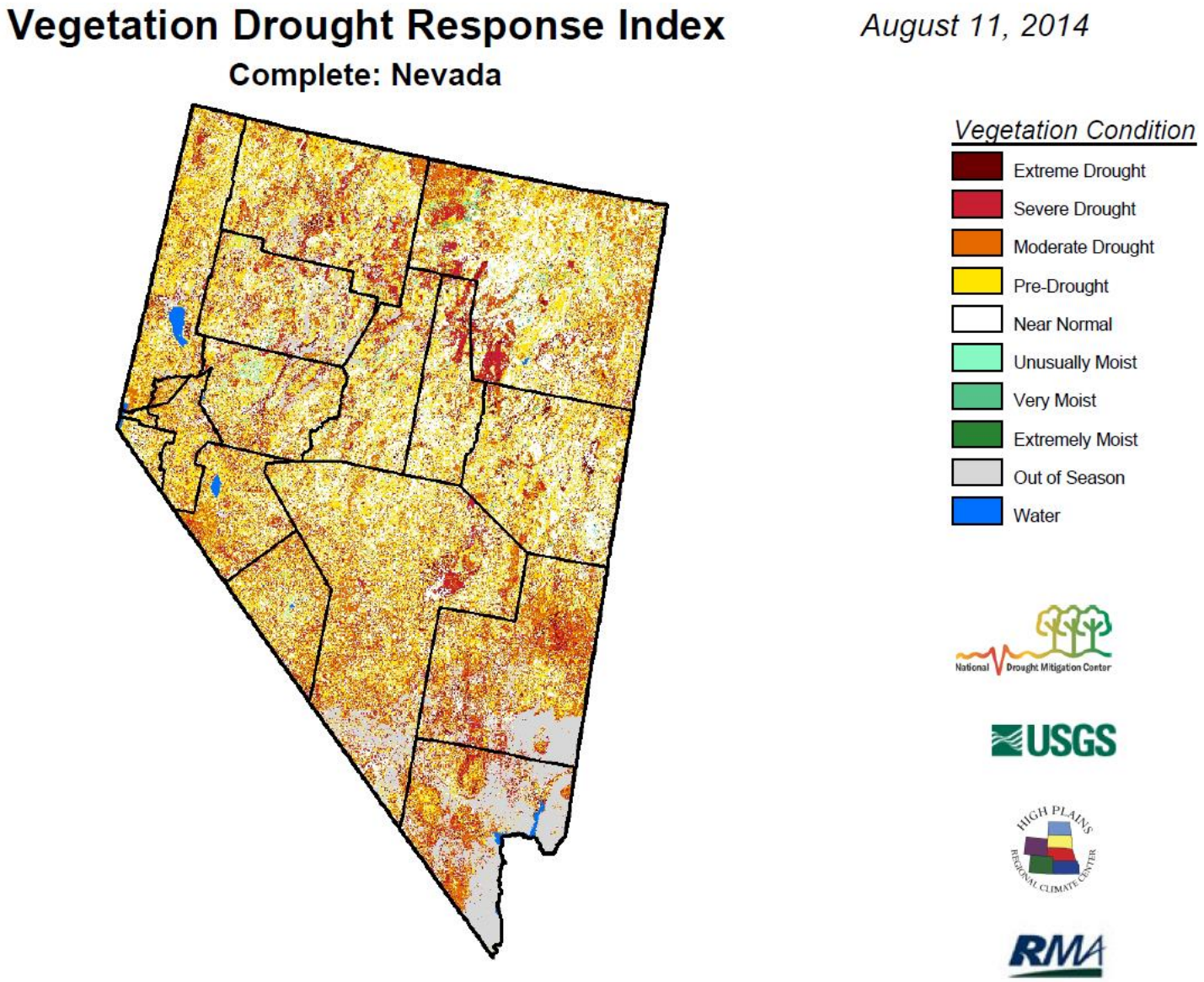
In regards to forage availability and rangeland condition, timing of precipitation is much more important that total precipitation. Studies from University of Idaho concluded that precipitation in only two months, May and June, explained 72% of forage species annual variability and including April explained nearly all of the variation (Rimbey et al., 1992). This means that overall, the area may be in drought based simply on annual precipitation, but good storms at the right time of the year can provide ample and even excess forage. This year, we have had rainfall at the right times, in most of the right places, to grow normal to above normal vegetation even while springs and streams are dry.

The USDM has the disclaimer that the "Drought Monitor focuses on broad-scale conditions. Local conditions may vary." The technical reference for the USDM highlights that water supply indicators such as snowpack, streamflow, groundwater levels, and reservoir levels have heavy weightings in determining severity of drought (see http://droughtmonitor.unl.edu/AboutUs/ClassificationScheme.aspx). We are not disputing that we are in a drought that matches the first definition of drought above. But the drought we are suffering from is an overall lack of moisture, primarily snow, to recharge our springs, streams, and groundwater supplies. Again, it is imperative to consider that forage and rangeland health is primarily driven by late spring and early summer rain events, not snow.

The proper metric to be used when taking broad scale assessments of forage availability and rangeland condition is the Vegetation Drought Response Index (VegDRI) (http://vegdri.unl.edu/Home.aspx), not the USDM. Both indices are published by the same entity. In fact, the Drought EAs state that the USDM will be used alone only to identify areas of water shortage. Yet, the EAs also state that the USDM **and** the Vegetation Drought Response Index (VegDRI) would be consulted **in tandem** to be the first step in "determine drought afflicted areas and vegetation condition as it pertains to drought stress" (p. 4). We contend that BLM is purposefully choosing to overlook the VegDRI as the first step in determining where to focus site-specific monitoring because the vegetation conditions exhibited according to VegDRI do not highlight severe or extreme drought as does the USDM. As previously mentioned, the USDM is primarily for making broad scale assessments on water supply and determining federal drought assistance. There is limited information regarding vegetation conditions that goes into the overall USDM. The vegetation information going into the USDM is also "outweighed" by the other water specific indicators. According to the VegDRI references, "VegDRI maps are produced every two weeks and provide regional to sub-county scale information about drought's effects on

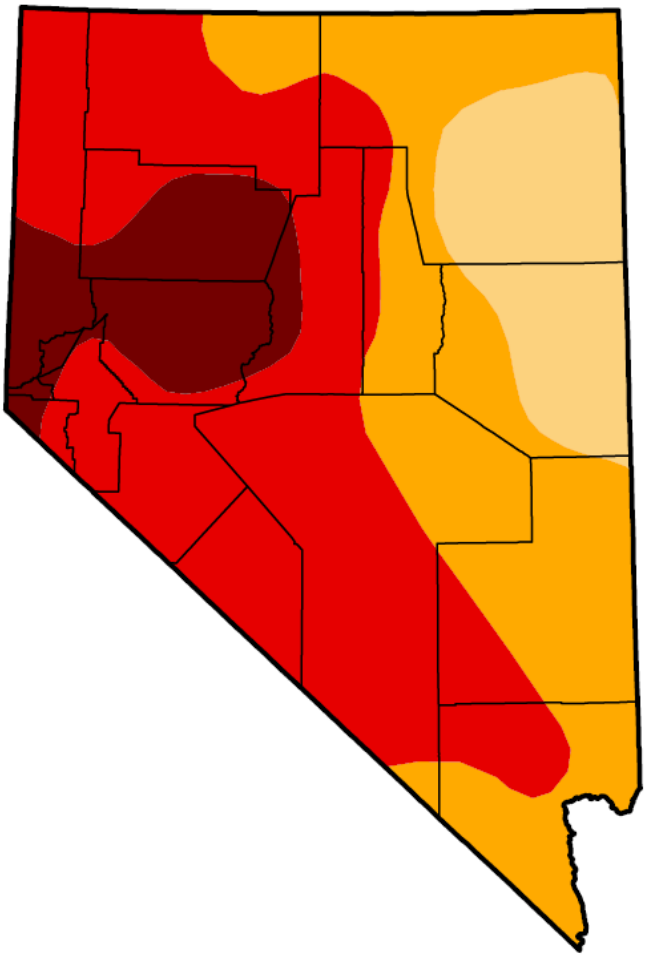
vegetation….The VegDRI calculations integrate satellite-based observations of vegetation conditions, climate data, and other biophysical information such as land cover/land use type, soil characteristics, and ecological setting. The VegDRI maps that are produced deliver continuous geographic coverage over large areas, and have inherently finer spatial detail (1-km2 resolution) than other commonly available drought indicators such as the U.S. Drought Monitor."

The figures below show the most recent VegDRI and USDM maps. For much of Nevada, the large bulk of areas are "Near Normal" to "Pre-Drought" with some areas starting to exhibit "Moderate Drought" with very few exhibiting "Severe Drought." A very different drought picture when compared to the USDM (again, primarily based on water supplies) that has most of the area in "Severe" to "Extreme" drought conditions. Also, the comparison of VegDRI maps from a year ago shows that vegetation conditions are in much better shape and in some cases many have recovered by multiple drought classes. Yet, most of the drought grazing restrictions are coming this year even with these rangeland vegetation improvements and recovery from a year ago. These same differences between VegDRI and USDM have existed in all of the respective index maps throughout the 2014 growing season up to today.



U.S. Drought Monitor

Nevada



August 19, 2014

(Released Thursday, Aug. 21, 2014)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	86.92	55.21	11.89
Last Week *8/12/2014*	0.00	100.00	100.00	86.92	55.21	11.89
3 Months Ago *5/20/2014*	0.00	100.00	100.00	87.03	38.73	8.24
Start of Calendar Year *12/31/2013*	0.39	99.61	96.81	77.66	28.55	5.37
Start of Water Year *10/1/2013*	0.39	99.61	96.79	79.11	28.55	5.37
One Year Ago *8/20/2013*	0.00	100.00	100.00	90.11	42.65	5.37

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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

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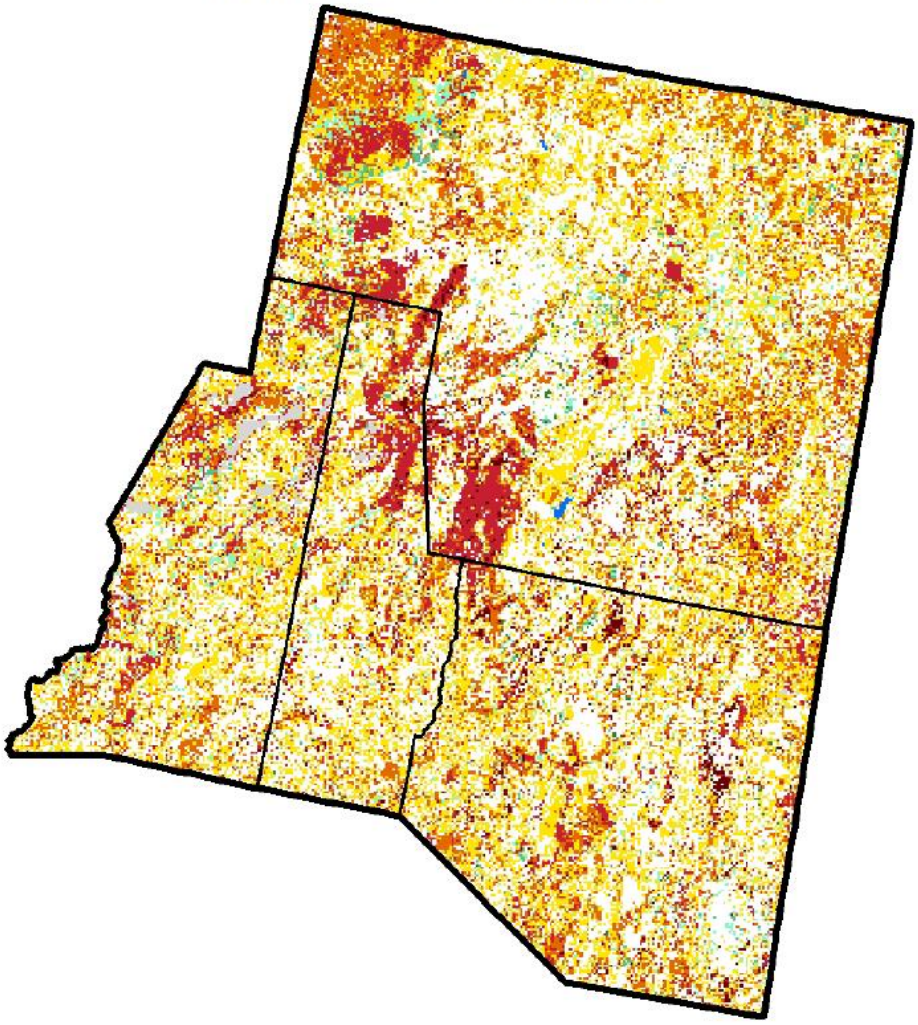
CPC/NOAA/NWS/NCEP

http://droughtmonitor.unl.edu/

Vegetation Drought Response Index

August 11, 2014

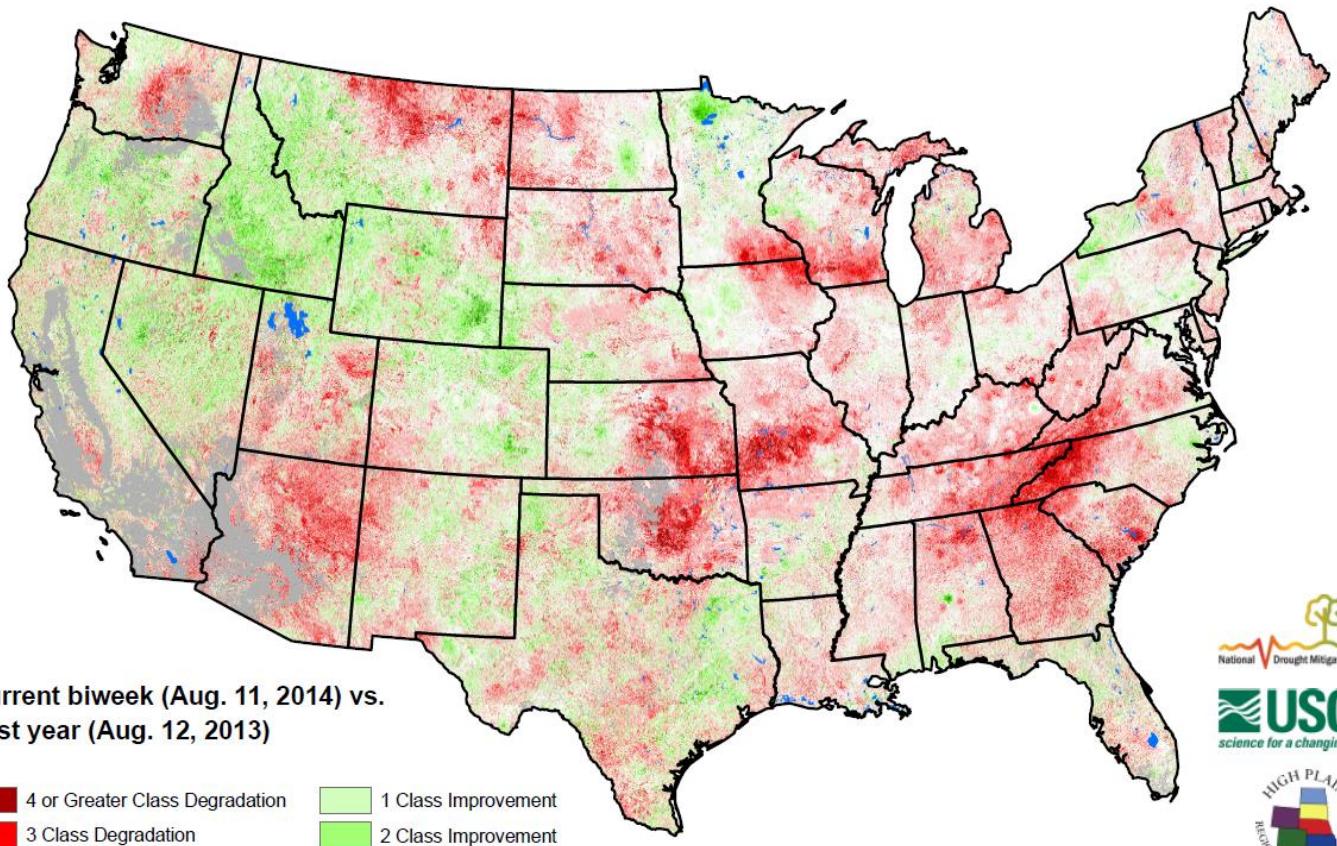
Complete: Nevada, Quad 2



Vegetation Condition

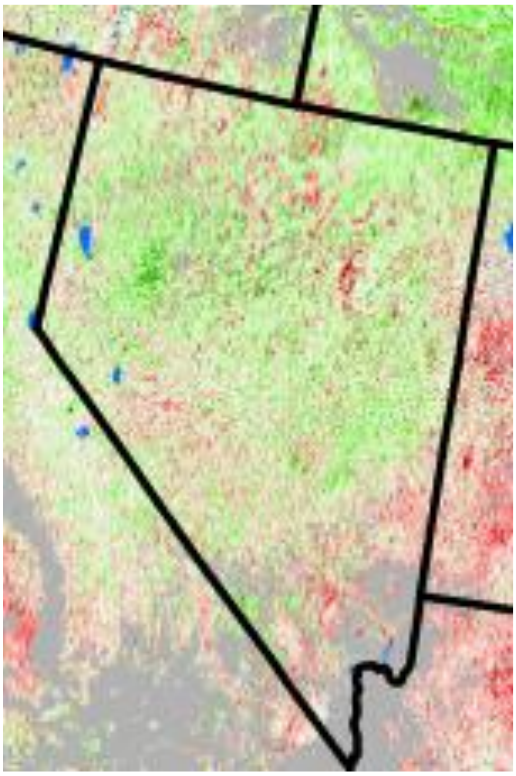
- Extreme Drought
- Severe Drought
- Moderate Drought
- Pre-Drought
- Near Normal
- Unusually Moist
- Very Moist
- Extremely Moist
- Out of Season
- Water

Vegetation Drought Response Index (VegDRI) Change



Current biweek (Aug. 11, 2014) vs.
Last year (Aug. 12, 2013)

- 4 or Greater Class Degradation
- 3 Class Degradation
- 2 Class Degradation
- 1 Class Degradation
- No Change
- 1 Class Improvement
- 2 Class Improvement
- 3 Class Improvement
- 4 or Greater Class Improvement
- Out of Season
- Water



These examples above place ranchers in the often untenable position of not being able to provide for the needs of their livestock at the right time of the year. Also, in some examples, these restrictions could be seen as a taking since the grazing season-of-use is not in line with the permitted use of the water right appurtenant to riparian areas.

We have found that under the above circumstances, any real resource burden is merely shifted to private lands. Much of the prime and invaluable wildlife and riparian habitat in the State is under private control. Anytime grazing restrictions are placed upon the federally administered land, it only increases the possibility and occurrences of land degradation on private lands—these restrictions do not solve the resource issues on a regional or global scale.

We ask for assistance in exhorting federal land management agencies, primarily BLM, to quit misusing drought as an excuse to reduce grazing when drought is truly not impacting rangeland conditions and to avoid unjustified, arbitrary and subjective grazing restrictions on federally administered lands with the following guiding principles, goals, and policies:

- Federal agencies in coordination with grazing permittees must ensure that management decisions are based upon the best rangeland science, that flexibility is built into grazing permits to allow for adaptive management as issues and concerns arise, and that that quality and quantity of data collected can support all decisions made;

- Before imposing grazing restrictions or seeking changes in livestock stocking rates or seasons of permitted use, federal agencies in coordination with grazing permittees must identify and implement all economically and technically feasible livestock distribution, forage production enhancement, weed control programs, prescribed grazing systems, off-site water development by the water rights holder, shrub and pinyon/juniper control, livestock salting/supplementing plans, and establishment of riparian pastures and herding;

- Federal agencies in coordination with grazing permittees must assure that all grazing management actions and strategies fully consider impact on property rights of inholders and adjacent private land owners and consider the potential impacts of such actions on grazing animal health and productivity.

If you have any questions or would like to discuss this matter in more detail, we can be reached at 775-237-6010 or at natresmgr@eurekanv.org. Thank you for your time and consideration.