

# **FINAL Argenta 2016 Year End Report and 2017 Stockmanship Plan**

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Field Data Collected October 10-21, 2016

Mount Lewis Field Office, BLM

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## EXECUTIVE SUMMARY

In June 2015, permittees of the Argenta Allotment and the Bureau of Land Management signed a Settlement Agreement to establish terms for the interim use and operation of the Argenta Allotment from 2015 to 2018. The terms include a stipulation to conduct public outreach. In 2015, the BLM decided the most effective way to involve the public was to issue a monitoring report and distribute/post on web. For 2016, this comprehensive report will remain the method the CMG uses to solicit involvement from the public. On January 13, 2017, the Mount Lewis Field Office issued the initial end-of-season monitoring report to the public to review proposed changes to the annual stockmanship plans and to solicit public comments. After reviewing and responding to comments, the MLFO is issuing this report as final.

From October 10-21, 2016, members of the Argenta Cooperative Monitoring Group (CMG) conducted monitoring of end-of-season use levels at designated upland monitoring areas and designated riparian monitoring areas (DMAs). Upland monitoring included the collection of annual utilization of key herbaceous species using the height/weight method and of key shrubs and half shrubs using the key species method, both of which are described in the Interagency Technical Reference 1734-3 (Coulloudon et al. 1996). Riparian monitoring included the measurement of residual stubble height on key herbaceous species, browse levels on key woody species, and streambank alteration using the methods described in the multiple indicator monitoring (MIM) protocol, BLM Technical Reference 1737-23 (Burton et al. 2011). It should be noted that a use level for streambank alteration was not specified by the 2015 Argenta Settlement Agreement.

In Section 3.6 of the Settlement Agreement, the end-of-season success of the grazing season would be identified on upland areas as light use levels (i.e. 30% use for key woody species and 40% use for key herbaceous species, except in the Mule Canyon use area where the end-of-season use level will be light to moderate use (i.e. 30% use of all key woody species and 50% use of all key herbaceous species.) For riparian areas, success was identified as a 4-inch stubble height on all key herbaceous species and 30% use on key woody riparian browse species. Finally, in Section 3.12, “overall allotment success” was defined as having 70% of the use areas meeting the end-of-season prescribed utilization levels for upland and riparian areas, with an aspirational goal of 100% success resulting from adaptive management and adjustments to the annual stockmanship plan.

Overall Allotment Success, for the purpose of this Interim Management Plan, is defined as having 70% of Use Areas (based on grazing use measurements at key areas and DMAs) meeting the end-of-season prescribed utilization levels for upland and riparian areas. As a result of dispute resolutions, the final determination of success will be calculated only on use areas that clearly did meet the end of season prescribed utilization levels for both upland and riparian areas or clearly did not meet end of season prescribed utilization levels. Overall, there were 10 use areas that were clearly successful in both riparian and upland prescribed use levels (East Flat, Fire Creek, Horse Haven, Mule Canyon, Sansinena, Slaven, South Flat, West Flat, Whirlwind and Winter). Three use areas were clearly not successful in meeting riparian or upland prescribed use levels (Maysville North, North Fork Mill Creek and Trout Creek). Therefore, there was 77% overall allotment success. In accordance with the 2015 Argenta Settlement Agreement, overall allotment success was achieved. There were a total of 6 use areas that were statistically uncertain.

In consideration of use areas meeting prescribed upland use levels across use areas there were 17 sites that clearly met annual use criteria, and no use areas that clearly did not meet annual use criteria. There were a total of 2 (Harry Canyon and Mill Creek) sites that were statistically uncertain. On riparian DMAs, 3 of the use areas clearly met annual use criteria (East Flat, Fire Creek and Slaven). Three use areas clearly did not meet annual use criteria (Maysville North, North Fork Mill Creek and Trout Creek). There were a total of 6 use areas that were statistically uncertain.

In 2016, 4 riparian exclosures were constructed to provide resource protection and assist in stockmanship across the Argenta Allotment. These exclosures are in the Mill Creek, North Fork Mill Creek, Slaven and Mule Canyon Use Areas. Two additional exclosures have been authorized under final decision by the MLFO but to

date have not been constructed. These will be constructed in Maysville South Use Area and in North Fork Mill Creek. Of the 4 riparian exclosures already on the ground the Mule Canyon, Slaven and Ratfink exclosures enclose the entirety of the DMA for that use area. The Mill Creek Exclosure only partially encloses the DMA. Additionally, it should be noted that the 2 exclosures in Maysville South and North Fork Mill Creek will enclose entirely DMAs as well once constructed.

The end-of-season monitoring data from 2016 indicates that there is improvement across use areas with consistently lower utilization measured across upland monitoring sites. The monitoring data collected at DMAs suggest that where riparian exclosures were installed in 2016, short-term indicators of livestock use were consistently lower on both herbaceous and woody species. There was notably lower utilization on annual use indicators at Ferris Creek and Crippen Canyon which are not exclosed. There was also notable improvement on woody browse in 2016 compared to 2015 across all DMAs. Going into the 2017 grazing year, management will be focused on riparian areas that still need additional improvement. The CMG has refined the stockmanship plan from 2016 to address these areas. Additionally, some of these sites may see the installation of jackrail fencing in 2017. The NRST has also identified and recommended additional sites that would benefit from temporary electric fences.

In the November CMG meeting, it was generally agreed that the level of within season monitoring was too extensive, particularly in upland areas. In the coming months, the MLFO and the Permittees will work together to develop a cooperative monitoring program which will focus on simple rapid monitoring methods which will inform the permittees on when to schedule livestock movements before prescribed utilization levels are exceeded. Priorities for monitoring will be focused on use areas that fell within the not met or may not have met at the conclusion of 2016. Attached to this report, is a summary presentation on long-term MIM data collected in June and the within-season monitoring data reported by Intermountain Range Consultants.

## **ACRONYMS AND ABBREVIATIONS**

**AUM** – Animal unit month

**BLM** – Bureau of Land Management

**BM** – Battle Mountain

**CMG** – Cooperative Monitoring Group

**DMA** – Designated Monitoring Area

**KMA** – Key Monitoring Area

**MIM** – Multiple Indicator Monitoring

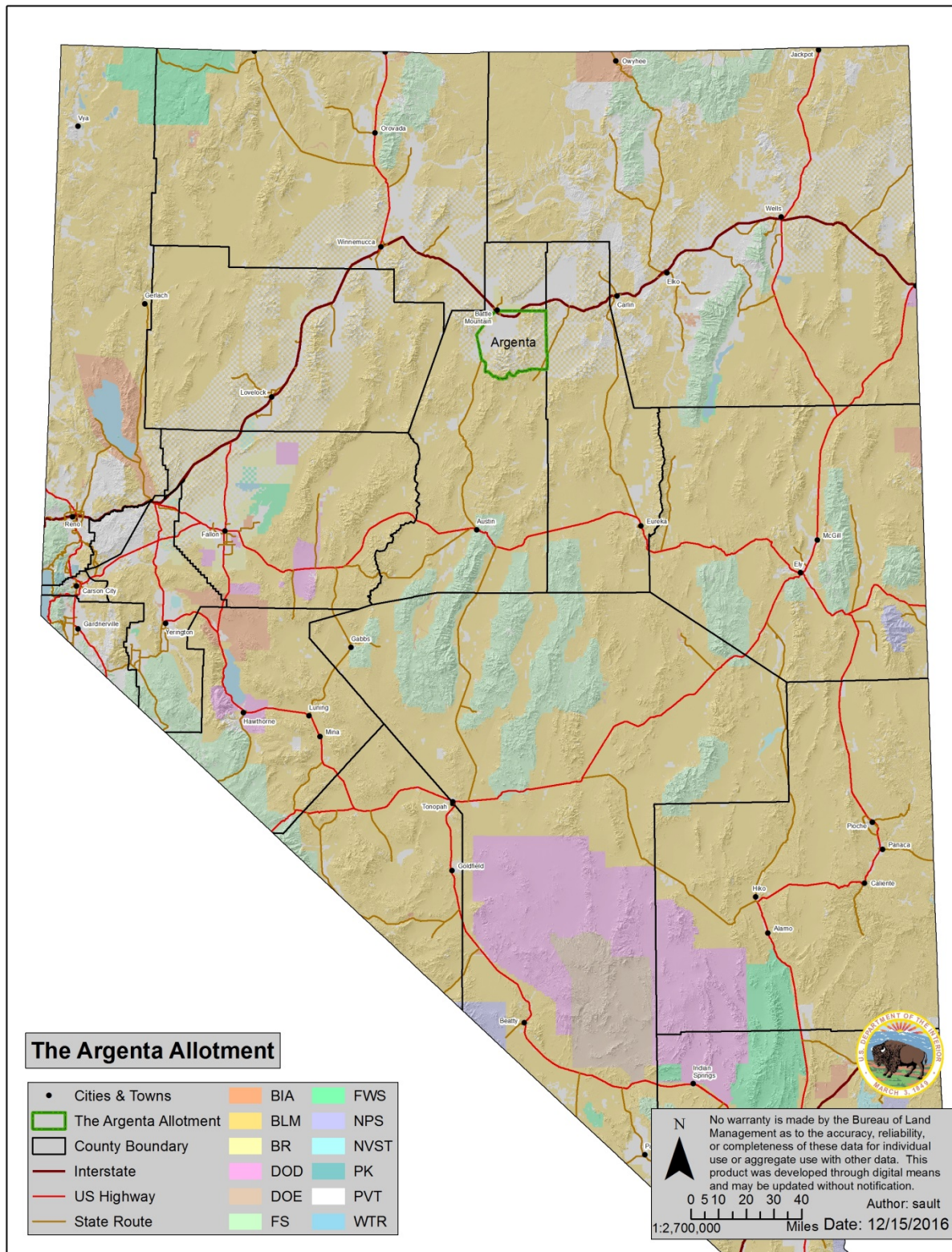
**NRCS** – Natural Resources Conservation Services

**NRST** – National Riparian Service Team

**OHA** – Office of Hearings and Appeals

**USDA** – United States Department of Agriculture

**UTM** – Universal Transverse Mercator (coordinate system)



**Figure**

**Figure 1.** Map depicts the Argenta Allotment in relation to Nevada.



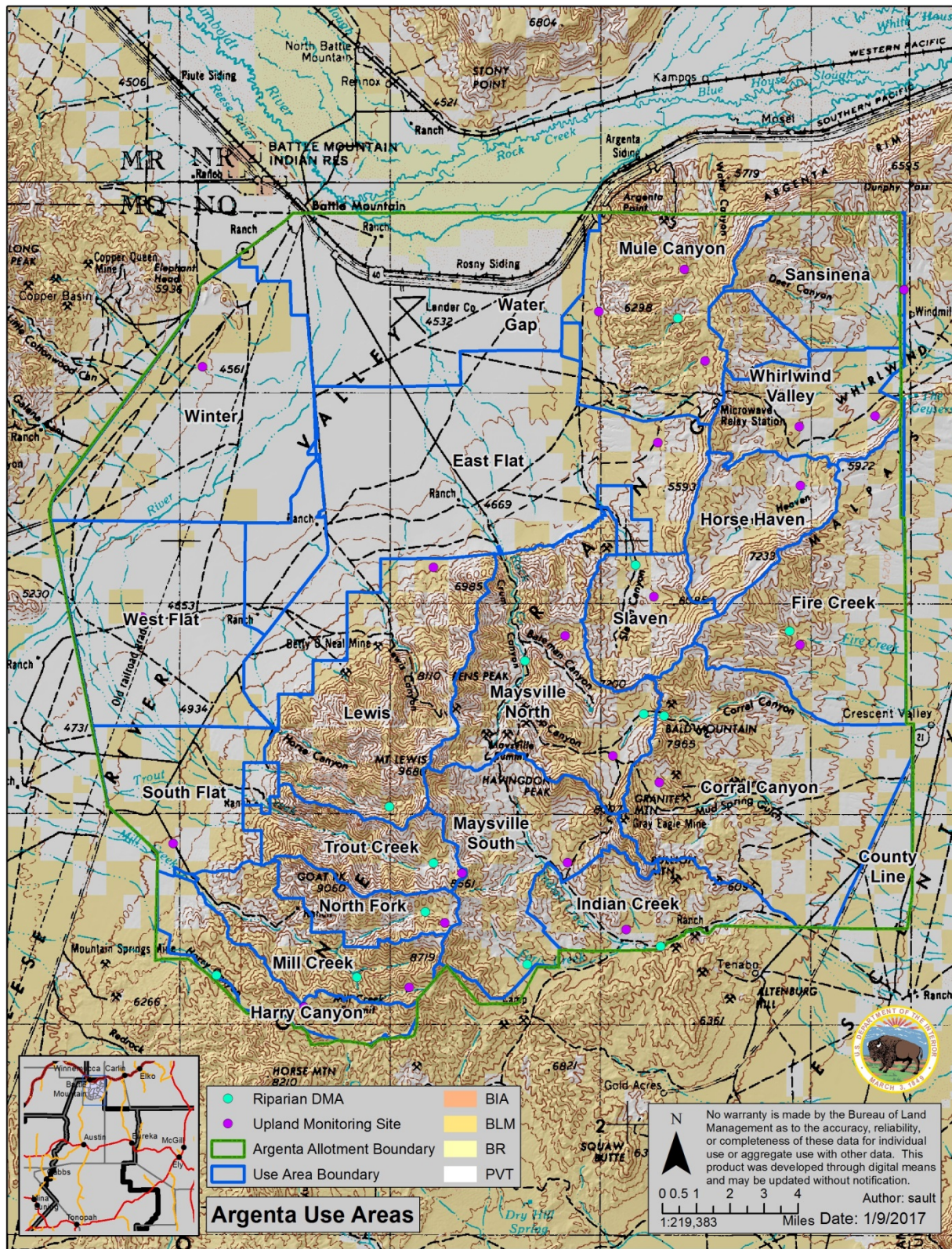


Figure 2. Map depicts the use areas within the Argenta Allotment.



## BACKGROUND

The Argenta Allotment is located southeast of Battle Mountain, Nevada and encompasses 331,518 acres, of which 141,689 acres are public land administered by the Bureau of Land Management (BLM). The primary resource values are greater sage-grouse priority habitat, emergency stabilization and rehabilitation post-fire seeding treatments, riparian and wetland habitat, forage for livestock and wildlife and isolated communities of aspen stands. The Argenta Allotment provides habitat for an array of avian species and forage for big game species such as mule deer and antelope. The riparian areas managed by BLM on public lands include 42 miles of perennial stream, 329 miles of intermittent/ephemeral stream, and 43 springs (*US Geological Survey's National Hydrography Dataset*, Version 210 (released 5/7/2014)). Additional riparian/wetland areas are present on intermingled private lands that are owned by a variety of individuals and groups, as well as permittees. No wild horse and burro herd management areas are present within the Argenta Allotment.

On August 22, 2014, the BLM Battle Mountain (BM) District issued a drought decision to temporarily close 9 of the 19 grazing Use Areas on the Argenta Allotment to protect the range during persistent drought conditions. Multiple appeals from the drought decision were filed with the Hearings Division in the Office of Hearings and Appeals (OHA), and were docketed as follows:

- Julian Tomera Ranches Inc., Battle Mountain Division, Chiara Ranch, Daniel E. and Eddyann U. Filippini, and Henry Filippini, Jr. v. BLM, NV-06-14-03
  - (Western Watersheds Project, Intervenor);
- John Carpenter v. BLM, NV-06-14-04;
- Western Watersheds Project v. BLM, NV-06-14-05;
- Nevada Land Action Association and Public Lands Council v. BLM, NV-06-14-06.

At the beginning of the 2015 grazing season, the Permittees and BLM initiated discussions to determine whether it would be possible to replace the temporary drought closure with a short-term grazing management strategy that prevents overgrazing and provided for resource protection, particularly in riparian areas. The BLM-NV State Director, BM District Manager, and Permittees requested National Riparian Service Team (NRST) assistance in working with the various stakeholders to explore development of an alternative short-term grazing management plan that protects range resources, while allowing for replacement of the temporary closures with management. This Agreement outlines the parameters for re-opening the temporarily closed Use Areas to grazing and for interim grazing management on the currently open Use Areas in the Argenta Allotment, using management techniques that are effective, feasible, and designed to achieve resource objectives. The Agreement is designed as a three-year interim management initiative that will include ongoing assistance and oversight by the NRST.

The agreement was submitted to the Office of Hearings and Appeals by a joint motion requesting dismissal of the pending appeals on June 16, 2014. It was accepted and approved through an Order issued from the OHA on June 24, 2015.

The settlement agreement establishes several provisions that are pertinent to this monitoring report:

1. Requires within-season and end-of-season monitoring
2. Establishes utilization levels for upland and riparian areas and sets goal for success
3. Requires public involvement at the end of each grazing season
4. Requires an adaptive management framework when goals are not met

### **Within-Season and End-of-Year Monitoring**

Permittees monitored utilization levels at riparian DMAs and upland monitoring sites during the grazing period to inform livestock movements. The permittees, BLM and/or other members of the Cooperative Monitoring Group (CMG) collected utilization, stubble height, and woody browse information at the end of the grazing season to determine end-of-season use levels in each use area.

**Establishes use levels for upland and riparian areas and sets goal for success**

The agreement states that if either the riparian or upland within-season trigger is exceeded for part of a Use Area, the affected Permittees will promptly move the livestock to another part of the Use Area if feasible, or from the Use Area if rotation within the Use Area is not feasible. If either the riparian or upland Use Level is exceeded in an entire Use Area, the affected Permittee will promptly move livestock to another Use Area that has not yet been grazed. If the within-season trigger is exceeded for all Use Areas within the allotment, all livestock must be removed from the allotment within 7-10 days.

Within Season triggers area as follows:

- The Within-Season triggers for upland areas in the nine Use Areas that were temporarily closed to grazing under the August 22, 2014, Decision will be light use, i.e. 30% use of all key woody species and 30% use of all key herbaceous species, respectively (not a combined average use of the two), as measured at Key Areas.
- The Within-Season triggers for upland areas in the Use Areas that remain open to grazing under the August 22, 2014, Decision (except for Mule Canyon Use Area) will be light use, i.e., 30% use of all key woody species and 35% use of all key herbaceous species, respectively (not a combined average use of the two), as measured at Key Areas.
- The Within-Season triggers for upland areas in Mule Canyon Use Area will be light use, i.e., 30% use of all key woody species and 40% use of all key herbaceous species, respectively (not a combined average use of the two), as measured at Key Areas.
- The Within-Season triggers for riparian areas will be 4" stubble height on all key herbaceous species and 30% use of key woody riparian browse species, as measured at DMAs.

End-of-season use levels are as follows:

- The end-of-season use levels for upland areas (except for the Mule Canyon Use Area) will be light use, i.e. 30% use for key woody species and 40% use for key herbaceous species, respectively (not a combined average use of the two), as measured at key areas.
- The end-of-season use levels in the Mule Canyon Use Area will be light to moderate use, i.e., 30% use of all key woody species and 50% use of all key herbaceous species, respectively (not a combined average of the two), as measured at key areas.
- In all Use Areas, the end-of-season use levels for riparian areas will be 4" stubble height on all key herbaceous species and 30% use of key woody riparian browse species, as measured at DMAs [designated monitoring areas].

Overall Allotment Success, for the purpose of this Interim Management Plan, is defined as having 70% of Use Areas (based on grazing use measurements at key areas and DMAs) meeting the end-of-season prescribed utilization levels for upland and riparian areas. This will allow for a learning curve and identification of any necessary adjustments (during implementation of the new intensive Stockmanship program under the Interim Management Period) so as to achieve demonstrable improvement in success in achieving the end-of-season use levels from year to year, toward an aspirational goal of 100% success. A Demonstrable Improvement in Success is a steady increase in the number of monitoring sites meeting end-of-year use levels over the course of this Agreement.

**Requirement for public involvement at the end of each year**

The agreement states, "To involve the public during the interim management period, the public will be invited to a public meeting at least annually between January and February so that CMG and NRST can review the previous year's monitoring information, review proposed changes in the annual stockmanship plans, and solicit public comments." In 2015, the BLM decided the most effective way to involve the public was to issue a monitoring report. For 2016, this comprehensive report will remain the method by which the CMG solicits involvement from the public. Following issuance, a 15-day public comment period will be provided for the public to consider and comment on the management in the Argenta Allotment under the 2015 Argenta Settlement Agreement before the 2017 stockmanship plan is finalized. This report was sent out to public

comment on January 13, 2017. Timely comments were received from Western Watershed Project, Intermountain Range Consultants and Wildlands Defense and responses to their comments can be found in attachment 1.

### **Requires adaptive management when goals are not met**

Before March 1st (i.e., the start of the next grazing season), the CMG will complete an end-of-year review to assess all the monitoring information and comments from the public and develop new stockmanship plans designed to meet Overall Allotment Success.

The Use Area End-of-Season Assessment Process Flow Chart (Appendix 1 of the Settlement Agreement) will be used as a guide. Where changes in grazing management are needed, adjustments may be made to the timing, duration, and/or intensity of grazing (e.g., stock density/livestock numbers, season of use, length of use, range improvements, and/or rest).

## **METHODS**

Under terms of the Settlement Agreement (SA), monitoring methods and analysis of the monitoring data will follow BLM protocols. Upland monitoring included the collection of annual utilization of key herbaceous species using the height/weight method and of key shrubs and half shrubs using the key species method, both of which are described in the Interagency Technical Reference 1734-3 (Coulloudon et al. 1999). Riparian monitoring included the measurement of stubble height on key herbaceous species, streambank alteration, and browse levels on key woody species using the methods described in the multiple indicator monitoring (MIM) protocol, BLM Technical Reference 1737-23 (Burton et al. 2011). It should be noted that a use level for streambank alteration was not specified by the 2015 Argenta Settlement Agreement. Analysis and interpretation of monitoring data followed the protocols of BLM Technical Reference 1730-1 (Elzinga et al. 1998). When possible, repeat photos were collected to show changes in resource condition prior to and over the course of the SA. Sites were monitored by dividing CMG members into 2 teams of 5-8 individuals. One team visited riparian Designated Monitoring Areas (DMAs) over the course of 5 days and one team visited the upland Key Areas over 6 days.

Members of the CMG conducted monitoring from October 10-21, 2016 on upland and riparian sites throughout the Argenta Allotment. The purpose of this round of monitoring was to collect end-of-season use data at monitoring sites as specified in the Settlement Agreement. Monitoring sites were vetted through an extensive review process with the CMG in 2015/2016. Some potential limitations of some preexisting and new sites were discovered during the October 2015 monitoring work, consequently the CMG formed an ID team comprised of technical experts from the NRST, NV State Office and the Mount Lewis Field Office to verify several upland monitoring sites.

### **Analysis and interpretation of utilization data**

Both Coulloudon et al. (1996) and Elzinga et al. (1998) discuss the process of data analysis and interpretation of utilization data or data used to determine if prescribed use levels are met. For example, Coulloudon et al. (1996, p. 13) emphasize the need to calculate and use confidence intervals to interpret rangeland monitoring data:

***“Confidence Interval*** – In rangeland monitoring, the true population total (or any other true population parameter) can never be determined. ***The best way to judge how well a sample estimates the true population total is by calculating a confidence interval.*** [Emphasis added.] The confidence interval is a range of values that is expected to include the true population size (or any other parameter of interest, often an average) a given percentage of the time (Krebs 1989). ***Confidence intervals are the principal means of analyzing utilization data.*** [Emphasis added.] For instructions in calculating confidence intervals, see the [BLM] Technical Reference, *Measuring & Monitoring Plant Populations* [Elzinga et al. 1998.]”



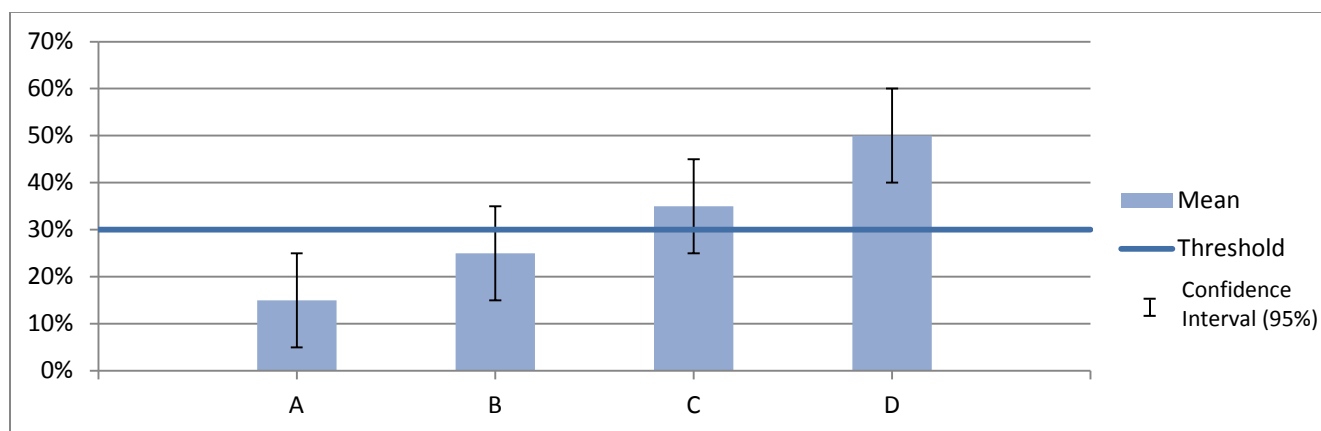
The confidence interval is dependent on the:

- Sample size (typically 20-30 for upland utilization and 20-150 for stubble height);
- Measurement precision (1/4 inch for upland utilization; 1 inch for stubble height; and as much as +/- 10% for the key species and the woody browse methods (e.g., a measurement of 4" represents a stubble height of any measured plant that falls within a range from 3.5" to 4.5"; likewise a woody browse measurement of 30% represents browse on a plant that ranges from a low of 21% to a high of 40%);
- Variability of measurements (higher variability within the sample population leads to a larger confidence interval);
- Observer errors or bias (which the CMG has tried is minimized by writing a detailed protocol of monitoring methods and providing field review and training of methods);
- Natural or environmental site variability (which is minimized by good site stratification),
- Level of statistical significance used;
- Statistical power and degree of confidence desired (MacDonald et al. 1991.) In multiple-indicator monitoring (MIM – BLM Technical Reference 1737-23), the default confidence interval is 95% (Burton et al., 2011, p. 23).

The preferred sample size for upland monitoring sites is 20-30 samples per species. Some sites had infrequent key species, however, so the CMG decided that a minimum of 10 samples is required in order for that specie to be included into analysis.

This report reports data in the following manner.

- 'Met' means that the DMA/KMA or Use Area successfully met the prescribed riparian or upland use levels set in the settlement agreement.
- 'Not Met' means that the DMA/KMA or Use Area was unsuccessful in meeting the prescribed riparian or upland use levels set in the settlement agreement (they were exceeded).
- 'Statistically Uncertain' means that it is unknown whether the DMA/KMA or Use Area met or did not meet the prescribed riparian or upland use levels set in the settlement agreement. Per the 2015 dispute resolutions relating to the interpretation of confidence intervals, these areas will be removed from final % success calculations. However, it will be noted whether they were more likely to have met or not met the prescribed use levels set in the settlement agreement.



**Figure 3.** Examples of possible results

For example, in example (A) in figure 3, the parameter estimate along with the entire range of the confidence interval is below the prescribed use level (in this case the end-of-season prescribed use level). In this case, the grazing use is clearly lighter than the prescribed use level, or prescribed use level, and therefore grazing use “met” the prescribed use levels of the Settlement Agreement. . In figure 3 example (D), the parameter estimate along with the entire range of the confidence interval is above the prescribed use level (in this case the end-of-

season prescribed use level). In this case, the grazing use is clearly greater than the prescribed use level, or prescribed use level, and the use at the monitoring site 'does not meet' the prescribed use level of the Settlement Agreement. In figure 3 examples (B) and (C), the confidence intervals span the prescribed use level, or the prescribed use level. Both examples represent a zone of statistical uncertainty as it cannot be known if the true parameter has crossed the prescribed use level. Sites with monitoring data similar to example (B) will be defined as 'Statistically uncertain and more likely to have met' the prescribed use level. Sites with monitoring data similar to example (C) will be defined as 'Statistically uncertain and more likely not to have met' the prescribed use level.

Data at upland sites are categorized into 5 categories of utilization on herbaceous key species to show relative degrees of use. Each class represents a numerical range of percent utilization. When there is more than one class listed, this indicates that the area of statistical uncertainty overlaps more than one class. The utilization classes are as follows:

- Slight (0%-20%). The key species has the appearance of no grazing to very light grazing. Plants may be topped or slightly used. Current seedstalks and young plants are little disturbed.
- Light (21%-40%). The key species may be topped, skimmed, or grazed in patches. Between 60 and 80 percent of current seedstalks remain intact. Most young plants are undamaged.
- Moderate (41%-60%). Half of the available forage (by weight) on key species appears to have been utilized. Fifteen to 25 percent of current seedstalks remain intact.
- Heavy (61%-80%). More than half of the available forage on key species appears to have been utilized. Less than 10 percent of the current seedstalks remain. Shoots of rhizomatous grasses are missing.
- Severe (81%-100%). The key species appears to have been heavily utilized and there are indications of repeated use. There is no evidence of reproduction or current seedstalks.

All photos taken at riparian DMAs were taken between of October 17th and October 24th, 2017.

## USE AREA RESULTS

In October 2016, the CMG monitored 23 upland monitoring sites and 13 riparian DMAs across 19 use areas in the Argenta Allotment. In the 2015 Argenta Settlement Agreement, success is defined as having 70% of Use Areas meeting the end of season prescribed utilization levels for upland and riparian areas. Over the duration of the interim management plan implemented by the Settlement Agreement, use areas that are not successful will be identified for changes in stockmanship and will be prioritized for intensive monitoring to ensure demonstrable improvement. The long-term goal is to strive for an aspirational goal of 100% success. This section discusses the success of stockmanship practices at the use area level. Results on a monitoring site level are summarized in a later section for upland monitoring sites and riparian DMAs individually in later sections.

**Table 1.** Table represents summary by use areas of upland monitoring data. Dashes represent that no data were collected related to that annual indicator in that use area.

Use Area	Operator	Upland Herbaceous	Upland Woody	Upland Overall
Corral Canyon	C Ranches*	Met	--	Met
East Flat	Julian Tomera	Met	--	Met
Fire Creek	Henry Filippini	Met	--	Met
Harry Canyon	Chiara Ranch	Statistically Uncertain (more likely to have met)	--	Statistically Uncertain (more likely to have met)
Horse Haven	Henry Filippini	Met	--	Met
Indian Creek	C Ranches*	Met	--	Met
Lewis	Julian Tomera	Met	--	Met
Maysville North	Julian Tomera	Met	--	Met
Maysville South	Julian Tomera	Met	--	Met
Mill Creek	Chiara Ranches	Statistically Uncertain (more likely to have met)	--	Statistically Uncertain (more likely to have met)
Mule Canyon	Julian Tomera	Met	Met	Met
North Fork Mill Creek	Julian Tomera	Met	--	Met
Sansinena	Henry Filippini	Met	Met	Met
Slaven	Julian Tomera	Met	--	Met
South Flat	Julian Tomera	Met	Met	Met
Trout Creek	Julian Tomera	Met	--	Met
West Flat	Julian Tomera	--	Met	Met
Whirlwind	Henry Filippini	Met	--	Met
Winter	Julian Tomera	--	Met	Met

Upland utilization was collected across 23 upland monitoring sites in 19 use areas; utilization was measured on herbaceous vegetation at 17 use areas within the Argenta Allotment. Fifteen of the 17 use areas in which herbaceous utilization was collected were successful in that all sites met the prescribed use levels (Table 1). The

2 of the 17 use areas where herbaceous utilization data were collected in the uplands had sites that were statistically uncertain and likely to have met prescribed use levels.

Woody use was collected in the uplands across 5 use areas in Argenta. All 5 of the use areas monitored for key woody species in the uplands were successful with all the sites meeting prescribed use levels (Table 1).

Seventeen of the 19 use areas monitored for upland utilization indicators were successful in meeting upland prescribed use levels. The remaining 2 of 19 use areas were statistically uncertain and more likely to have met upland prescribed use levels. There was no upland monitoring sites that clearly did not meet prescribed use levels.

As a result of dispute resolutions, the final determination of success will be calculated only on use areas that either clearly did meet the prescribed use levels (successful) or clearly did not meet the prescribed use levels (not successful). On upland use areas there were 17 sites that were clearly successful and no use areas that were clearly not successful. There were a total of 2 sites that were statistically uncertain.

**Table 2.** Summary of results by use areas in which data were collected on riparian DMAs. Dashes represent that no data was collected in that use area.

Use Area	Operator	Stubble Height	Woody Species Use	Overall Riparian
Corral Canyon	C Ranches*	Statistically Uncertain (likely to have met)	Met	Statistically Uncertain (likely to have met)
Fire Creek	Henry Filippini	Met	Met	Met
Harry Canyon	Chiara Ranch	--	Statistically Uncertain (likely to have met)	Statistically Uncertain (likely to have met)
Indian Creek	C Ranches*	Met	Statistically Uncertain (likely to not have met)	Statistically Uncertain (likely to not have met)
Lewis	Julian Tomera	Statistically Uncertain (likely to have met)	Met	Statistically Uncertain (likely to have met)
Maysville North	Julian Tomera	Not Met	Not Met	Not Met
Maysville South	Julian Tomera	Statistically Uncertain (likely to have met)	Statistically Uncertain (likely to not have met)	Statistically Uncertain (likely to not have met)
Mill Creek	Chiara Ranches	Statistically Uncertain (likely to have met)	--	Statistically Uncertain (likely to have met)
Mule Canyon	Julian Tomera	Met	Met	Met
North Fork Mill Creek	Julian Tomera	Not Met	--	Not Met
Slaven	Julian Tomera	Met	--	Met
Trout Creek	Julian Tomera	Not Met	--	Not Met

The 13 riparian DMAs were monitored across 12 use areas in the Argenta Allotment. The CMG collected stubble height data in 11 of the 12 use areas with riparian DMAs (Table 2). Four of the 11 use areas were successful in meeting the stubble height use level. Four of the 11 use areas were statistically uncertain and was more likely to have met stubble height use levels. Three of the 11 use areas did not meet stubble height use levels.

The CMG collected woody species use data in 8 of the 12 use areas with riparian DMAs (Table 2). Four of the 8 use areas were successful in meeting woody species use levels. One of the 8 use areas was statistically uncertain and was more likely to have met use levels. Two of the 8 use areas were statistically uncertain and were more likely to not have met the woody species use levels. One of the 8 use areas did not meet the woody

species use levels.

Three of the 12 use areas were successful in meeting riparian prescribed use levels (See Table 2). Four of the 12 use areas were statistically uncertain and were more likely to have met prescribed use levels. Two of the 12 use areas were statistically uncertain and were more likely to not have met prescribed use levels. Three of the 12 use areas were not successful and did not meet prescribed use levels.

As a result of dispute resolutions 2016, the final determination of success will be calculated only on use areas that either clearly did meet prescribed use levels (successful) or clearly did not meet prescribed use levels (not successful). On riparian DMAs, 3 of the use areas were clearly successful and 3 use areas were clearly not successful. There were 6 use areas that were statistically uncertain.

**Table 3.** Summary of results by use area in which data were collected on both upland monitoring sites and riparian DMAs. Dashes represent that no data was collected in that use area.

Use Area	Operator	Uplands	Riparian	Use Area Overall
Corral Canyon	C Ranches*	Met	Statistically Uncertain (likely to have met)	Statistically Uncertain (likely to have met)
East Flat	Julian Tomera	Met	Met	Met
Fire Creek	Henry Filippini	Met	Met	Met
Harry Canyon	Chiara Ranch	Statistically Uncertain (likely to have met)	Statistically Uncertain (likely to have met)	Statistically Uncertain (likely to have met)
Horse Haven	Henry Filippini	Met	--	Met
Indian Creek	C Ranches*	Met	Statistically Uncertain (likely to not have met)	Statistically Uncertain (likely to not have met)
Lewis	Julian Tomera	Met	Statistically Uncertain (likely to have met)	Statistically Uncertain (likely to have met)
Maysville North	Julian Tomera	Met	Not Met	Not Met
Maysville South	Julian Tomera	Met	Statistically Uncertain (likely to not have met)	Statistically Uncertain (likely to not have met)
Mill Creek	Chiara Ranches	Statistically Uncertain (likely to have met)	Statistically Uncertain (likely to have met)	Statistically Uncertain (likely to have met)
Mule Canyon	Julian Tomera	Met	--	Met
North Fork Mill Creek	Julian Tomera	Met	Not Met	Not Met
Sansinena	Henry Filippini	Met	--	Met
Slaven	Julian Tomera	Met	Met	Met
South Flat	Julian Tomera	Met	--	Met
Trout Creek	Julian Tomera	Met	Not Met	Not Met
West Flat	Julian Tomera	Met	--	Met
Whirlwind	Henry Filippini	Met	--	Met
Winter	Julian Tomera	Met	--	Met

Data were collected at both upland monitoring sites and riparian DMAs across 19 use areas (Table 3). Ten of the 19 use areas were successful in meeting all of the prescribed use levels. Four of the 19 use areas were statistically uncertain and were more likely to have met prescribed use levels. Two of the 19 use areas were

statistically uncertain and were more likely to not have met prescribed use levels. Three of the 19 use areas did not meet prescribed use levels and were not successful. Based on these results, the NRST and the Permittees worked to make appropriate changes to the stockmanship plan which is detailed in the section titled 2017 Stockmanship Plan in this report.

As a result of dispute resolutions, the final determination of success will be calculated only on use areas that either clearly did meet (successful) or clearly did not meet prescribed use levels (not successful). Overall, there were 10 use areas that were clearly successful and 3 that were clearly not successful; therefore there was a 77% success rate overall. There were 6 sites that were statistically uncertain. In accordance with the 2015 Argenta Settlement Agreement, overall allotment success was achieved.



## UPLAND MONITORING RESULTS

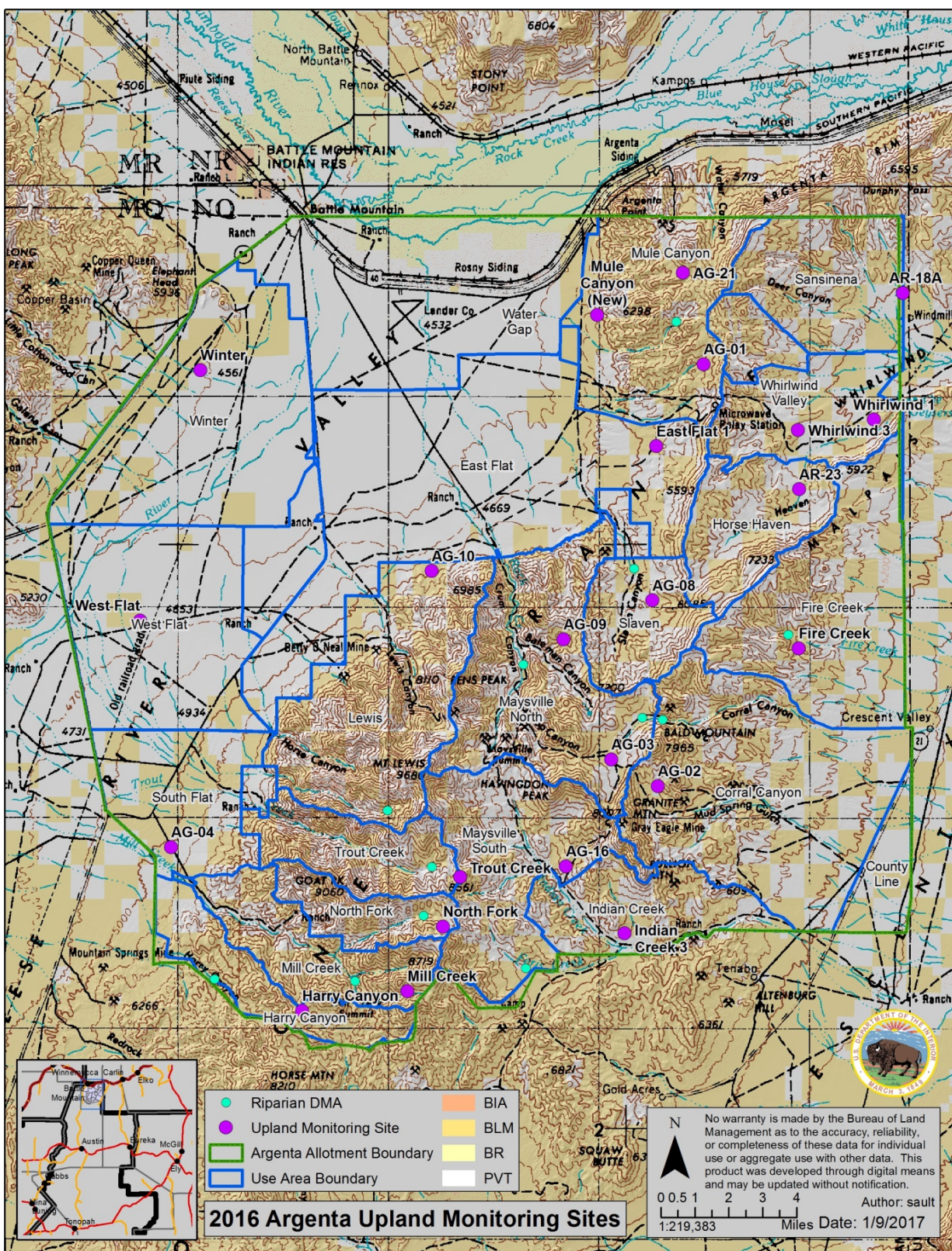


Figure 3. Map depicts the upland sites monitored in Argenta in October 2016.



**Table 4.** Table represents the NRCS plant symbols, scientific names, common names and growth type for key species observed in the uplands.

UPLAND KEY SPECIES LIST			
NRCS Plant Symbol	Scientific Name	Common Name	Type
ACLE9	<i>Achnatherum lettermanii</i>	Letterman's needlegrass	Herbaceous
ACTH7	<i>Achnatherum thurberianum</i>	Thurber's needlegrass	Herbaceous
AGCR	<i>Agropyron cristatum</i>	crested wheatgrass	Herbaceous
ATCO	<i>Atriplex confertifolia</i>	shadscale saltbush	Woody
BAPR5	<i>Bassia prostrata</i>	forage kochia	Woody
BRMA4	<i>Bromus marginatus</i>	mountain brome	Herbaceous
ELEL5	<i>Elymus elymoides</i>	squirreldtail	Herbaceous
ELTR7	<i>Elymus trachycaulus</i>	slender wheatgrass	Herbaceous
FEID	<i>Festuca idahoensis</i>	Idaho fescue	Herbaceous
POSE	<i>Poa secunda</i>	Sandberg bluegrass	Herbaceous
PSSPS	<i>Pseudoroegneria spicata</i>	bluebunch wheatgrass	Herbaceous
THIN6	<i>Thinopyrum intermedium</i>	intermediate wheatgrass	Herbaceous



## Upland Monitoring Summary

**Table 5.** Summary of annual utilization relative to prescribed use levels established by the 2015 Argenta Settlement Agreement. Dashes represent that data was not collected for that site.

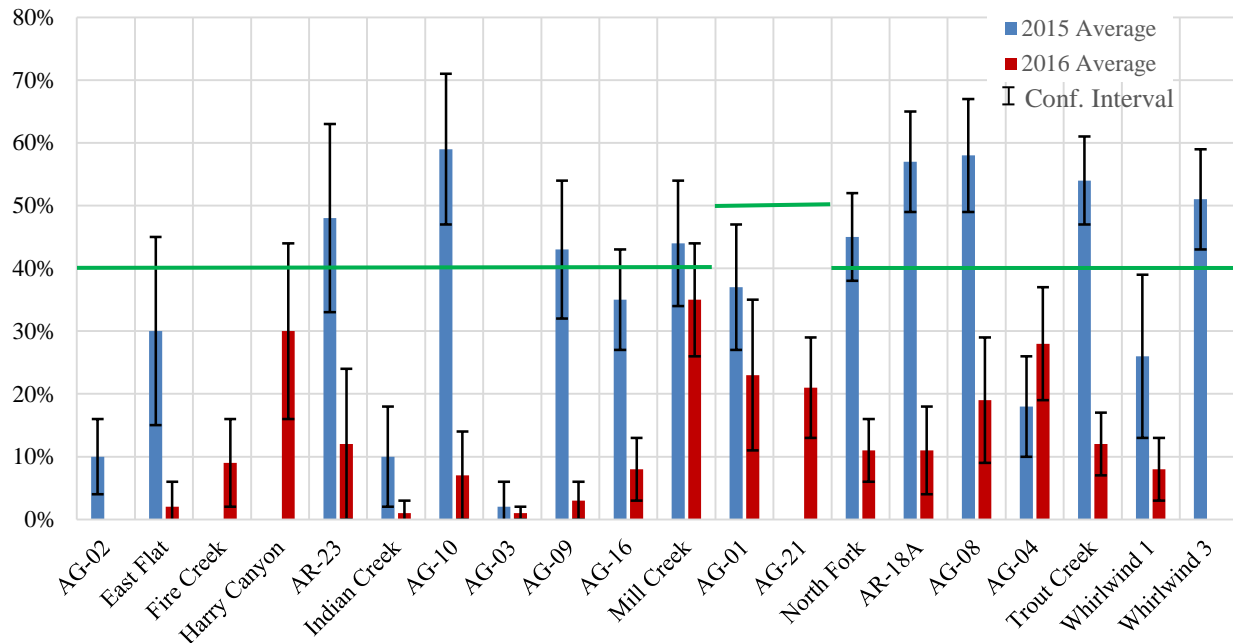
Use Area	Operator	Location	Herbaceous	Woody	Overall
Corral Canyon	C Ranches*	AG-02	Met	--	Met
East Flat	Julian Tomera	East Flat 1	Met	--	Met
Fire Creek	Henry Filippini	Fire Creek	Met	--	Met
Harry Canyon	Chiara Ranch	Harry Canyon	Statistically Uncertain (likely to have met)	--	Statistically Uncertain (likely to have met)
Horse Haven	Henry Filippini	AR-23	Met	--	Met
Indian Creek	C Ranches*	Indian Creek 3	Met	--	Met
Lewis	Julian Tomera	AG-10	Met	--	Met
Maysville North	Julian Tomera	AG-03	Met	--	Met
Maysville North	Julian Tomera	AG-09	Met	--	Met
Maysville South	Julian Tomera	AG-16	Met	--	Met
Mill Creek	Chiara Ranches	Mill Creek	Statistically Uncertain (likely to have met)	--	Statistically Uncertain (likely to have met)
Mule Canyon	Julian Tomera	AG-01	Met	Met	Met
Mule Canyon	Julian Tomera	AG-21	Met	Met	Met
Mule Canyon	Julian Tomera	Mule Canyon (New)	--	Met	Met
North Fork Mill Creek	Julian Tomera	North Fork	Met	--	Met
Sansinena	Henry Filippini	AR-18A	Met	Met	Met
Slaven	Julian Tomera	AG-08	Met	--	Met
South Flat	Julian Tomera	AG-04	Met	Met	Met
Trout Creek	Julian Tomera	Trout Creek	Met	--	Met
West Flat	Julian Tomera	West Flat	--	Met	Met
Whirlwind	Henry Filippini	Whirlwind 1	Met	--	Met
Whirlwind	Henry Filippini	Whirlwind 3	Met	--	Met
Winter	Julian Tomera	Winter	--	Met	Met

\*C Ranches is permitted to graze within the Argenta allotment, but is not a signatory party to the Argenta Settlement Agreement.

In the 2015 Argenta Settlement Agreement, success is defined as 70% of Use Areas meeting the end-of-season prescribed utilization levels for upland and riparian areas. Over the duration of the interim management plan implemented by the Settlement Agreement, use areas that are not successful or are statistically uncertain will be identified for changes in stockmanship and will be prioritized for increased

monitoring to support the attainment of the long term goal of 100% overall allotment success.

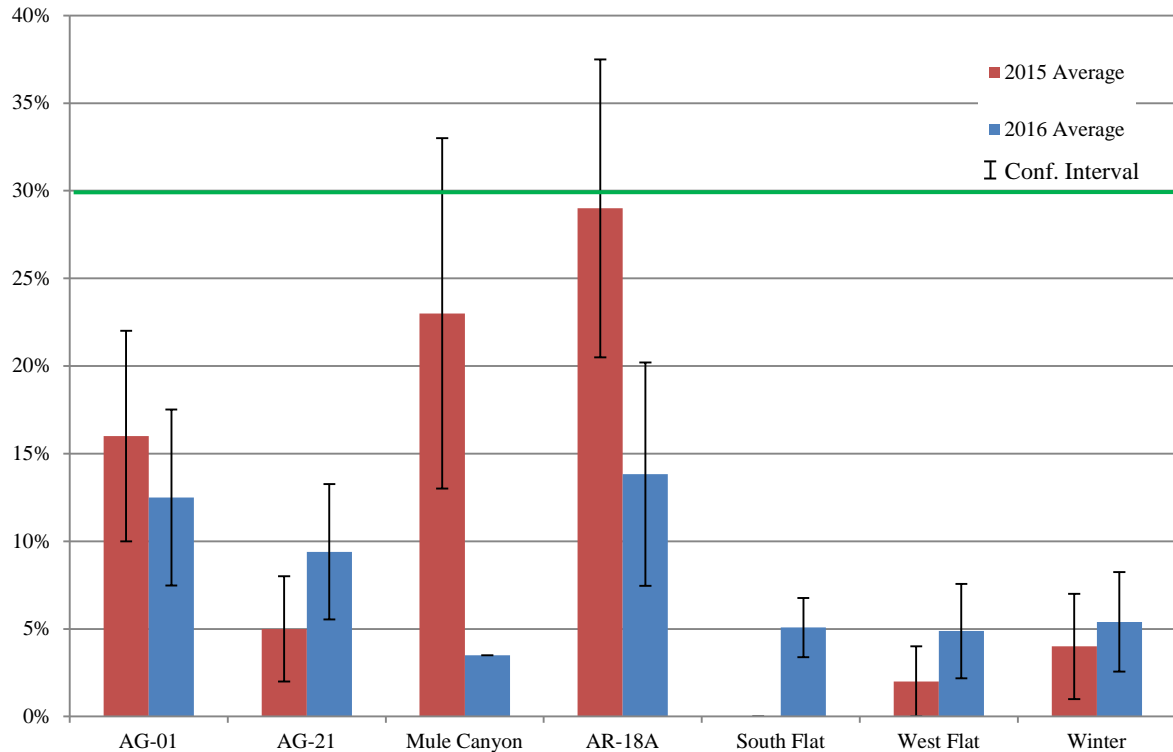
In the uplands, with exception in the Mule Canyon Use Area (AG-01 and AG-21 monitoring areas) the prescribed use level for the uplands is 30% use for key woody species and 40% utilization for key herbaceous species. In the Mule Canyon Use Area, the prescribed use level is 30% use for key woody herbaceous species and 50% use of all key herbaceous species.



**Figure 5** Comparison of end of season herbaceous utilization by monitoring area in 2015 and 2016. Error bars represent 95% confidence interval. There was an insufficient sample size at AG-21 in 2015. Empty values in AG-02, Fire Creek, Harry Canyon and Whirlwind 3 represent 0% utilization measured. The green line represents the prescribed use level as established by the 2015 Argenta Settlement Agreement.

In October 2016, the CMG monitored 23 upland monitoring sites across 19 use areas in the Argenta Allotment (Table 5). Twenty of the 23 upland monitoring sites were monitored for utilization on key herbaceous species in 2016 across 17 use areas (Figure 5). Eighteen of the 20 monitoring sites were successful in meeting prescribed use levels on herbaceous species. Two of the 20 upland monitoring sites were statistically uncertain and were more likely to have met prescribed use levels on herbaceous species.

The CMG collected woody browse data on key woody species on 7 of the 23 upland monitoring sites in 5 use areas (Figure 6). All 7 of the upland monitoring sites met prescribed use levels.



**Figure 6.** Comparison of end of season woody use by monitoring area in 2015 and 2016. Error bars represent 95% confidence interval. No data was collected for woody species at the South Flat monitoring area in 2015. The green line represents the prescribed use level as established by the 2015 Argenta Settlement Agreement.

In sites where confidence intervals in 2016 don't overlap the confidence intervals from 2015, there is statistically significant difference in utilization (See Figure 5 for key herbaceous species and Table 6 for key woody species). Monitoring data in the uplands from 2016 compared to 2015 shows 10 of the 20 upland monitoring sites have statistically lower utilization over the previous year on herbaceous key species. AG-10, AR18A, AG-08, Trout Creek and Whirlwind 3 all improved from not meeting the herbaceous use level in 2015 to meeting the herbaceous use level in 2016. East Flat, AR-23, AG-09, AG-16 and North Fork all improved from statistically uncertain in 2015 to meeting the herbaceous use level in 2016. At Harry Canyon, there is a statistically significant increase in use on herbaceous key species from 0% measured utilization to  $30\% \pm 14\%$  utilization. This site has been reclassified from meeting prescribed use levels in 2015 to being statistically uncertain and more likely to have met prescribed use levels in 2016.

Comparing monitoring data in the uplands on woody use from 2016 compared to 2015, Mule Canyon and AR-18A have statistically lower utilization over the previous year on herbaceous key species. Both sites improved from statistically uncertain in 2015 to meeting woody use levels in 2016.

## Corral Canyon Use Area – AG-02

**Location in UTM:** Zone 11T 522693m 4471785m N

**Observations and Results:** At the conclusion of the grazing year in 2015, average utilization on this site was  $10\% \pm 6\%$ . The utilization levels, as defined by the settlement agreement, were met. In 2016, there was 0% utilization observed. Utilization levels were met as defined by the settlement agreement.

The Corral Canyon Use Area was used by C Ranches, a non-signatory party of the Settlement Agreement, and was not actively grazed by any of the signatory permittees in the 2016 grazing year.

**Table 6.** Upland monitoring data for AG-02.

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>AG-02 avg.</b>	<b>20</b>	<b>24.1</b>	<b>N/A</b>	<b>24.1</b>	<b>0%</b>	<b><math>\pm 0\%</math></b>
Thurber's needlegrass	20	24.1	N/A	24.1	0%	$\pm 0\%$

**Table 7.** Low frequency species not included at AG-02

<b>Data Not Used Due to Inadequate Sample Size</b>	
	<b>Sample Size</b>
bluebunch wheatgrass	5



**Figure 7.** Witness post at AG-02

## East Flat Use Area – East Flat 1

**Location in UTM:** Zone 11T 522628m E 4487909m N

**Observations and Results:** At the conclusion of the grazing year in 2015, average utilization on this site was  $30\% \pm 15\%$ . The upland utilization level, as defined by the settlement agreement, was statistically uncertain as to having met or not met. In 2016, average observed utilization was slight. On this site, the upland utilization level was met as defined by the settlement agreement. The utilization measured at the conclusion of 2016 shows a statistically significant improvement on this site compared to data collected in 2015.

**Table 8.** Upland monitoring data for East Flat 1

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>East Flat avg.</b>	<b>20</b>	<b>16.1</b>	<b>3.0</b>	<b>15.5</b>	<b>2%</b>	<b><math>\pm 4\%</math></b>
Sandberg bluegrass	20	16.1	3.0	15.5	2%	$\pm 4\%$

**Table 9.** Low frequency species not included

Data Not Used Due to Inadequate Sample Size	
	Sample Size
bottlebrush squirreltail	9



**Figure 8.** East Flat 1 landscape photo



## Fire Creek Use Area – Fire Creek

**Location in UTM:** Zone 11T 529395m E 4478311m N

**Observations and Results:** This site is dominated by sagebrush with an understory of Sandberg's bluegrass and bottlebrush squirreltail. At the conclusion of the grazing year in 2015, there was 0% utilization observed. The utilization level, as defined by the settlement agreement, was met. In 2016, observed utilization was slight. On this site, the average utilization level was met as defined by the settlement agreement.

**Table 10.** Upland monitoring data for Fire Creek

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>Fire Creek avg.</b>	<b>40</b>	<b>12.2</b>	<b>2.4</b>	<b>11.8</b>	<b>9%</b>	<b>± 7%</b>
squirreltail	20	10.4	4.5	10.7	14%	± 7%
Sandberg bluegrass	20	14.1	0.3	13.4	5%	± 9%



**Figure 9.** Fire Creek landscape photo

## Harry Canyon Use Area – Harry Canyon

**Location in UTM:** Zone 11T 505823m E 4461111m N

**Observations and Results:** At the conclusion of the grazing year in 2015 there was 0% utilization observed. The utilization level, as defined by the settlement agreement, was met. In 2016, average observed utilization was slight to moderate. On this site, the utilization level was statistically uncertain and was more likely to have met prescribed use levels as defined by the settlement agreement.

Because the level of use on this site is statistically uncertain, the CMG has determined this site will be prioritized for increased monitoring and intensive stockmanship to ensure that prescribed use levels are met during the 2017 grazing year.

**Table 11.** Upland monitoring data for Harry Canyon

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>Harry Canyon avg.</b>	<b>20</b>	<b>19.3</b>	<b>4.7</b>	<b>13.8</b>	<b>30%</b>	<b>± 14%</b>
Sandberg bluegrass	20	19.3	4.7	13.8	30%	± 14%



**Figure 10.** Harry Canyon landscape photo



## Horse Haven Use Area – AR-23

**Location in UTM:** Zone 11T 529408m E 4485867m N

**Observations and Results:** This site had burned in the past and was reseeded with crested wheatgrass. The understory of the site is dominated with Sandberg's bluegrass and includes an abundance of cheatgrass and other annuals. At the conclusion of the grazing year in 2015, average utilization on this site was  $48\% \pm 15\%$ . The utilization level, as defined by the settlement agreement, was statistically uncertain. In 2016, average observed utilization was slight to light. On this site, the utilization level was met as defined by the settlement agreement. The utilization measured at the conclusion of 2016 shows a statistically significant decrease in utilization on this site compared to data collected in 2015.

**Table 12.** Upland monitoring data for AR-23

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
AR-23 avg.	20	14.0	5.3	12.3	12%	$\pm 12\%$
Sandberg bluegrass	20	14.0	5.3	12.3	12%	$\pm 12\%$



**Figure 11.** AR-23 landscape photo



## Indian Creek Use Area – Indian Creek 3

**Location in UTM:** Zone 11T 521121m E 4464800m N

**Observations and Results:** At the conclusion of the grazing year in 2015, average utilization on this site was  $10\% \pm 8\%$ . The utilization level, as defined by the settlement agreement, was met. In 2016, average observed utilization was slight. On this site, the utilization level was met as defined by the settlement agreement.

The Indian Creek Use Area was used by C Ranches, a non-signatory party of the Settlement Agreement, and was not actively grazed by any of the signatory permittees in the 2016 grazing year.

**Table 13.** Upland monitoring data for Indian Creek 3

	Sample Size	Ungrazed Avg. Ht (in)	Grazed Avg. Ht (In)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>Indian Creek avg.</b>	<b>40</b>	<b>12.9</b>	<b>10.3</b>	<b>12.7</b>	<b>1%</b>	<b><math>\pm 2\%</math></b>
Sandberg bluegrass	20	15.7	14.7	15.5	1%	$\pm 1\%$
squirreltail	20	10.1	6.0	9.7	1%	$\pm 2\%$

**Table 14.** Low frequency species not included

Data Not Used Due to Inadequate Sample Size	
	Sample Size
Indian ricegrass	8



**Figure 12.** Indian Creek 3 landscape photo

## Lewis Use Area – AG-10

**Location in UTM:** Zone 11T 511970m E 4481985m N

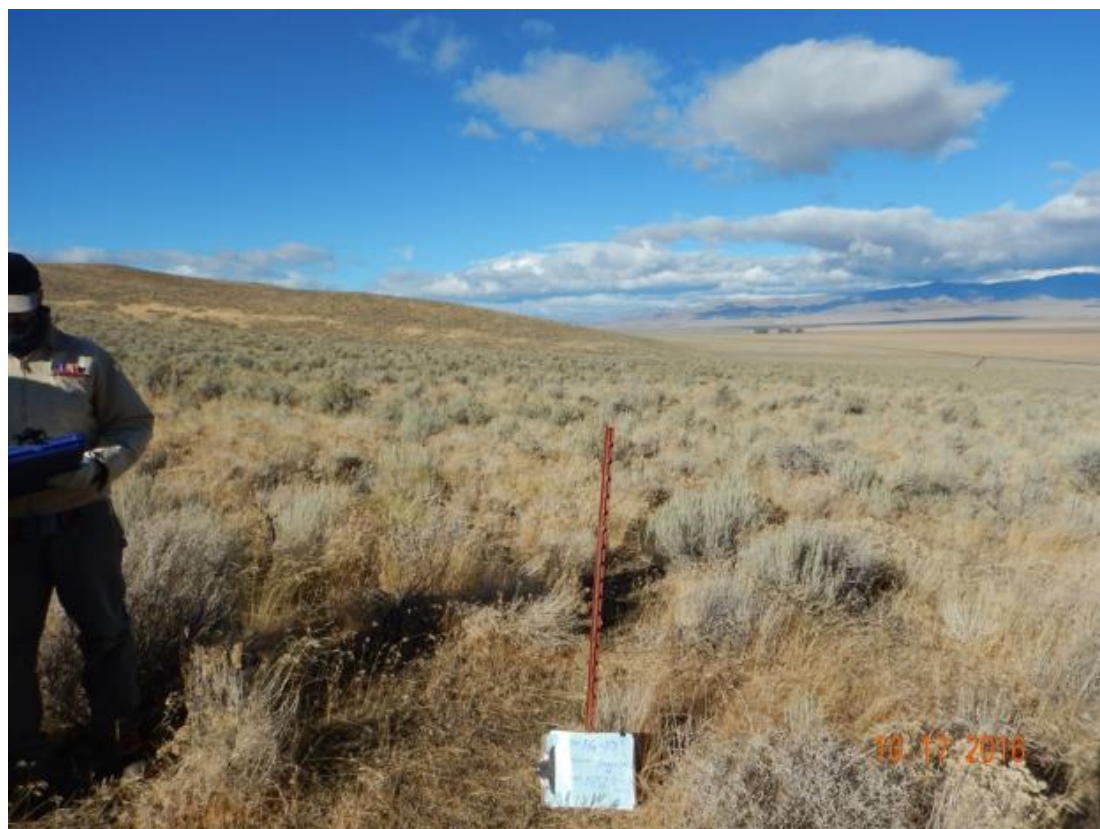
**Observations and Results:** This site is dominated by Wyoming big sagebrush with an understory of Sandberg's bluegrass and scattered bottlebrush squirreltail plants. Both at the end of 2015 there was an insufficient sample size for bottlebrush squirreltail. At the conclusion of the grazing year in 2015, average utilization on this site was  $59\% \pm 12\%$ . The utilization level, as defined by the settlement agreement, was not met. In 2016, average observed utilization was slight. On this site, the utilization level was met as defined by the settlement agreement. The utilization measured at the conclusion of 2016 shows a statistically significant decrease in utilization on this site compared to data collected in 2015.

**Table 15.** Upland monitoring data for AG-10

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>AG-10 avg.</b>	<b>20</b>	<b>14.4</b>	<b>3.4</b>	<b>13.0</b>	<b>8%</b>	<b><math>\pm 9\%</math></b>
Sandberg bluegrass	20	14.4	3.4	13.0	8%	$\pm 9\%$

**Table 16** Low frequency species not included

Data Not Used Due to Inadequate Sample Size	
	Sample Size
Squirreltail	10



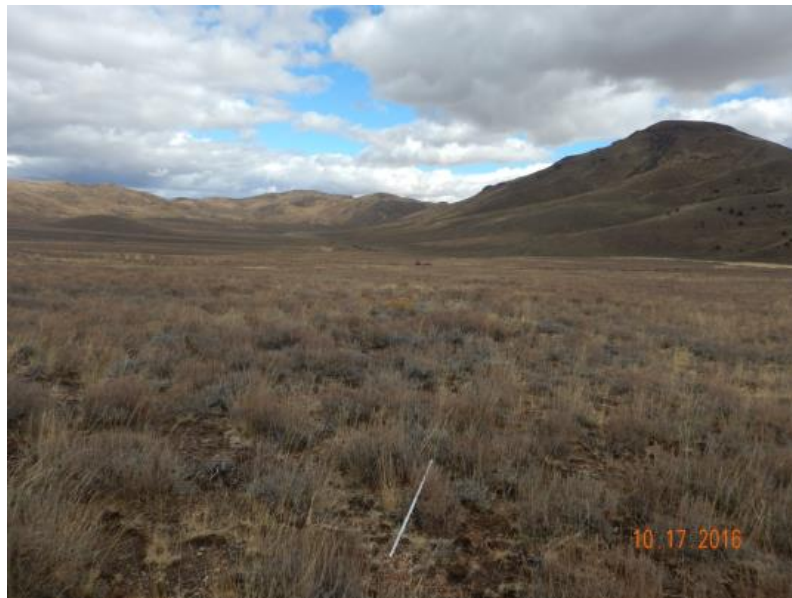
**Figure 13.** AG-10 witness post

## Maysville North Use Area

Maysville North Use Area contains data from two separate upland monitoring sites. Only herbaceous species were monitored at these sites.

**Table 17.** Average utilization across Maysville North Use Area.

	Sample Size	Ungrazed Avg. Ht (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>Maysville North Use Area avg.</b>	<b>80</b>	<b>21.7</b>	<b>25.1</b>	<b>22.0</b>	<b>2%</b>	<b>± 2%</b>
AG-03 avg.	40	10.3	2.8	10.1	1%	± 1%
AG-09 avg.	40	33.1	28.8	32.5	3%	± 3%



**Figure 14.** AG-03 landscape photo



**Figure 15.** AG-09 landscape photo

## Maysville North - AG-03

**Location in UTM:** Zone 11T 520488m E 4473038m N

**Observations and Results:** At the conclusion of the grazing year in 2015, average utilization on this site was  $2\% \pm 4\%$ . The utilization level, as defined by the settlement agreement, was met. In 2016, average observed utilization was slight. On this site, the utilization level was met as defined by the settlement agreement.

**Table 18.** Upland monitoring data for AG-03

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>AG-03 avg.</b>	<b>40</b>	<b>10.3</b>	<b>2.8</b>	<b>10.1</b>	<b>1%</b>	<b><math>\pm 1\%</math></b>
squirreltail	20	8.6	2.8	8.3	1%	$\pm 3\%$
Sandberg bluegrass	20	12.1	N/A	12.0	0%	$\pm 0\%$

**Table 19.** Low frequency species not included

Data Not Used Due to Inadequate Sample Size	
	Sample Size
Thurber's needlegrass	2

## Maysville North - AG-09

**Location in UTM:** Zone 11T 518233m E 4478751m N

**Observations and Results:** At the conclusion of the grazing year in 2015, there were measurements taken on intermediate wheatgrass. There was no curve available at the time of reporting. The utilization on this site has been calculated since. Utilization was  $43\% \pm 11\%$ . The utilization level, as defined by the settlement agreement, was statistically uncertain. In 2016, average observed utilization was slight. On this site, the utilization level was met as defined by the settlement agreement. The utilization measured at the conclusion of 2016 shows a statistically significant decrease in utilization on this site compared to data collected in 2015.

**Table 20.** Upland monitoring data for AG-09

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>AG-09 avg.</b>	<b>40</b>	<b>33.1</b>	<b>28.8</b>	<b>32.5</b>	<b>3%</b>	<b><math>\pm 3\%</math></b>
bluebunch wheatgrass	20	29.4	N/A	29.4	0%	$\pm 0\%$
intermediate wheatgrass	20	36.9	28.8	35.0	6%	$\pm 5\%$



## Maysville South Use Area – AG-16

**Location in UTM:** Zone 11T 518336m E 4467964m N

**Observations and Results:** This site is dominated with big sagebrush and an understory of Sandberg's bluegrass and bottlebrush squirreltail. At the conclusion of the grazing year in 2015, average utilization on this site was  $35\% \pm 8\%$ . The utilization level, as defined by the settlement agreement, was statistically uncertain and was more likely to have met prescribed use levels. In 2016, average observed utilization was slight. On this site, the utilization level was met as defined by the settlement agreement. The utilization measured at the conclusion of 2016 shows a statistically significant decrease in utilization on this site compared to data collected in 2015.

**Table 21.** Upland monitoring data for AG-16

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>AG-16 avg.</b>	<b>60</b>	<b>18.7</b>	<b>8.0</b>	<b>16.1</b>	<b>8%</b>	<b><math>\pm 5\%</math></b>
Thurber's needlegrass	20	25.0	9.8	20.2	12%	$\pm 10\%$
squirreltail	20	14.3	3.7	12.5	9%	$\pm 9\%$
Sandberg bluegrass	20	16.7	10.6	14.8	2%	$\pm 2\%$



**Figure 16.** AG-16 landscape photo

## Mill Creek Use Area – Mill Creek

**Location in UTM:** Zone 11T 510814m E 4462038m N

**Observations and Results:** This site is dominated by sagebrush with an understory of Letterman's needlegrass and mountain brome. At the conclusion of the grazing year in 2015, average utilization on this site was  $44\% \pm 10\%$ . The utilization level, as defined by the settlement agreement, was statistically uncertain. In 2016, average observed utilization was light to moderate. On this site, the utilization level was statistically uncertain and more likely to have met use levels as defined by the settlement agreement.

Because the level of use on this site is statistically uncertain, the CMG has determined this site will be prioritized for increased monitoring and more a more intensive focus on stockmanship to ensure that prescribed use levels are met during the 2017 grazing year.

**Table 22.** Upland monitoring data for Mill Creek

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
Mill Creek avg.	40	26.3	7.9	18.1	35%	$\pm 9\%$
Letterman's needlegrass	20	24.7	6.1	15.9	47%	$\pm 11\%$
mountain brome	20	27.8	9.8	21.1	22%	$\pm 12\%$



**Figure 17.** Mill Creek landscape photo

## Mule Canyon Use Area

Within the Mule Canyon use area, upland monitoring data was collected at three separate upland monitoring sites. The key species for these sites include both herbaceous and woody species. Under section 3.6 of the settlement agreement, herbaceous and woody species will be evaluated separately. All three sites had been burned previously and were reseeded with either forage kochia, crested wheatgrass or both. Additionally, under the settlement agreement, prescribed use levels in the Mule Canyon Use Area is 50% on all key herbaceous species and 30% on all key woody species.

**Table 23.** Average herbaceous utilization across the Mule Canyon Use Area.

Herbaceous						
	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>Mule Canyon Use Area avg.</b>	<b>60</b>	<b>20.1</b>	<b>6.9</b>	<b>15.4</b>	<b>21%</b>	<b>± 6%</b>
AG-01 avg.	20	14.9	4.3	11.3	22%	± 12%
AG-21 avg.	40	22.7	8.2	17.3	21%	± ± 8%

**Table 24.** Average woody browse across the Mule Canyon Use Area

Woody			
	Sample Size	Average Use	95% Conf. Interval
<b>Mule Canyon Use Area avg.</b>	<b>60</b>	<b>7%</b>	<b>± 2%</b>
AG-01 avg.	20	13%	± 5%
AG-21 avg.	20	9%	± 4%
Mule Canyon (New) avg.	20	4%	± 0%



## Mule Canyon - AG-01

**Location in UTM:** Zone 11T 524876m E 4491809m N

**Observations and Results:** At the conclusion of the grazing year in 2015, average utilization on herbaceous species was  $37\% \pm 10\%$ . The utilization level for herbaceous species, as defined by the settlement agreement, was met. In 2016, average observed utilization on herbaceous species was slight to light. On this site, the utilization level for herbaceous species was met as defined by the settlement agreement.

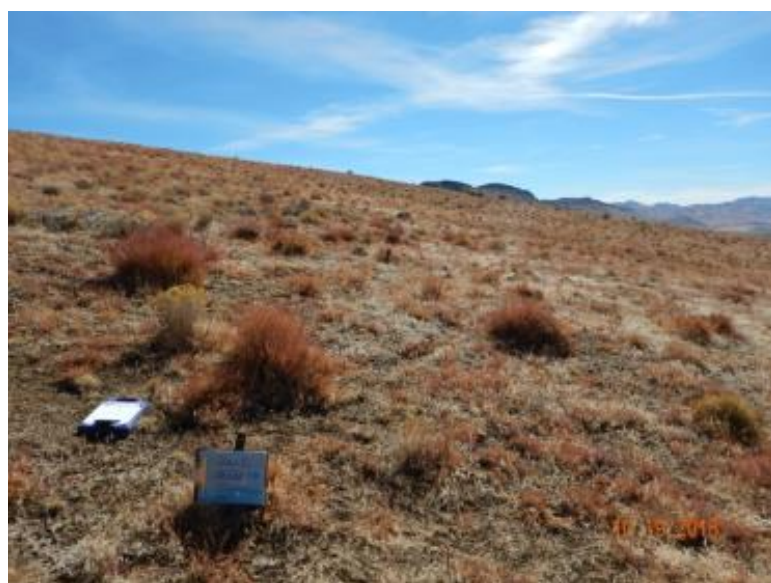
At the conclusion of the grazing year in 2015, average use on woody species on this site was  $16\% \pm 6\%$ . The utilization level for woody species, as defined by the settlement agreement, was met. In 2016, average observed utilization was slight. On this site, the utilization level was met as defined by the settlement agreement.

**Table 25.** Upland monitoring data for AG-01 on key herbaceous species

Herbaceous						
	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>AG-01 avg.</b>	<b>20</b>	<b>14.9</b>	<b>4.3</b>	<b>11.3</b>	<b>23%</b>	<b><math>\pm 12\%</math></b>
Sandberg bluegrass	20	14.9	4.3	11.3	23%	$\pm 12\%$

**Table 26.** Upland monitoring data for AG-01 on key woody species

Woody			
	Sample Size	Average Use	95% Conf. Interval
<b>AG-01 avg.</b>	<b>20</b>	<b>12%</b>	<b><math>\pm 5\%</math></b>
forage kochia	20	12%	$\pm 5\%$



**Figure 18.** AG-01 landscape photo



## Mule Canyon - AG-21

**Location in UTM:** Zone 11T 523895m E 4496141m N

**Observations and Results:** At the end of the 2015 grazing year, there was an insufficient sample size of herbaceous vegetation on this site. In 2016, average observed utilization was slight to light. On this site, the utilization level was met as defined by the settlement agreement.

At the conclusion of the grazing year in 2015, average utilization on this site was  $5\% \pm 3\%$  for woody species. The utilization level, as defined by the settlement agreement, was met. In 2016, average observed utilization on woody species was slight. On this site, the utilization level was met as defined by the settlement agreement for woody species.

**Table 27.** Upland monitoring data for AG-01 on key herbaceous species

Herbaceous						
	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>AG-21 avg.</b>	<b>40</b>	<b>22.7</b>	<b>8.2</b>	<b>17.3</b>	<b>21%</b>	<b><math>\pm 8\%</math></b>
crested wheatgrass	20	26.6	8.0	18.6	34%	$\pm 12\%$
Idaho fescue	20	18.7	8.3	15.7	8%	$\pm 8\%$

**Table 28.** Upland monitoring data for AG-21 on key woody species

Woody			
	Sample Size	Average Use	95% Conf. Interval
<b>AG-21 avg.</b>	<b>20</b>	<b>9%</b>	<b><math>\pm 4\%</math></b>
forage kochia	20	9%	$\pm 4\%$



**Figure 19.** AG-21 landscape photo

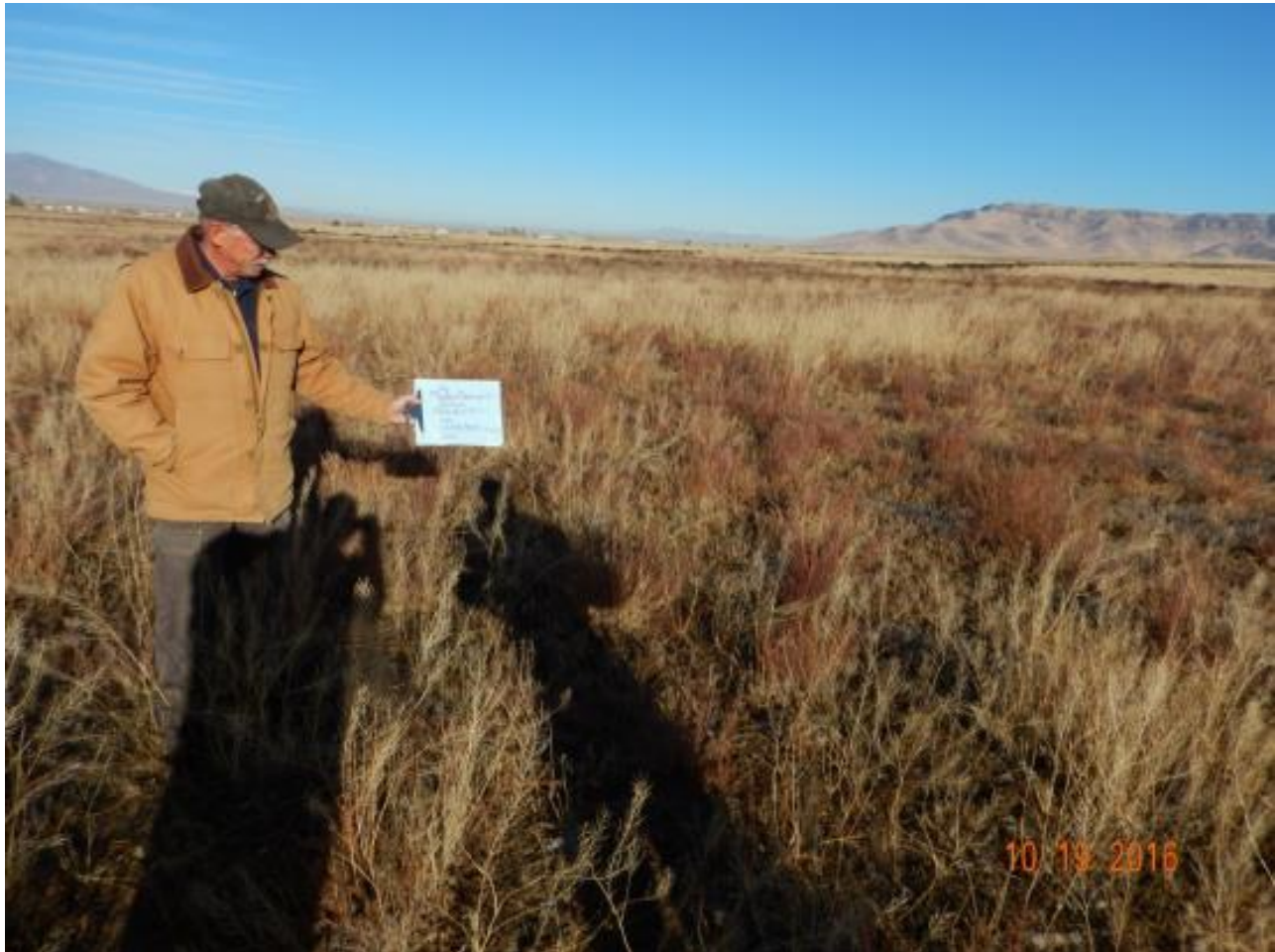
## Mule Canyon (New)

**Location in UTM:** Zone 11T 519822m E 4494136m N

**Observations and Results:** At the conclusion of the grazing year in 2015, average utilization on key woody species on this site was  $23\% \pm 10\%$ . The utilization level, as defined by the settlement agreement, was statistically uncertain. In 2016, average observed utilization was slight. On this site, the utilization level was met as defined by the settlement agreement. The utilization measured at the conclusion of 2016 shows a statistically significant improvement on annual use indicators on this site compared to data collected in 2015.

**Table 29.** Upland monitoring data for AG-01

Woody			
	Sample Size	Average Use	95% Conf. Interval
Mule Canyon avg.	20	4%	$\pm 0\%$
forage kochia	20	4%	$\pm 0\%$



**Figure 20.** Mule Canyon (New) landscape photo

## North Fork Use Area – North Fork

**Location in UTM:** Zone 11T 512511m E 4465109m N

**Observations and Results:** At the conclusion of the grazing year in 2015, average utilization on this site was  $45\% \pm 7\%$ . The utilization level, as defined by the settlement agreement, was statistically uncertain. In 2016, average observed utilization was slight. On this site, the utilization level was met as defined by the settlement agreement. The utilization measured at the conclusion of 2016 shows a statistically significant decrease in utilization on this site compared to data collected in 2015.

**Table 30.** Upland monitoring data for North Fork

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>North Fork avg.</b>	<b>60</b>	<b>25.5</b>	<b>10.8</b>	<b>23.9</b>	<b>12%</b>	<b><math>\pm 6\%</math></b>
Letterman's needlegrass	20	30.8	11.3	27.5	8%	$\pm 9\%$
mountain brome	20	28.1	10.8	21.6	25%	$\pm 13\%$
slender wheatgrass	20	25.0	14.6	23.3	4%	$\pm 6\%$

**Table 31.** Low frequency species not included

Data Not Used Due to Inadequate Sample Size	
	Sample Size
Idaho fescue	7
bottlebrush squirreltail	13



**Figure 21.** North Fork landscape photo



## Sansinena Use Area – AR-18A

**Location in UTM:** Zone 11T 534319m E 4495188m N

**Observations and Results:** At the conclusion of the grazing year in 2015, average utilization on key herbaceous species on this site was  $57\% \pm 8\%$ . The utilization level, as defined by the settlement agreement, was not met. In 2016, average observed utilization on key herbaceous species was slight. On this site, the utilization level was met as defined by the settlement agreement.

At the conclusion of the grazing year in 2015, average woody use on this site was  $29\% \pm 8\%$ . The utilization level, as defined by the settlement agreement, was statistically uncertain. In 2016, average observed woody use was slight. On this site, the woody use level was met as defined by the settlement agreement.

The utilization measured at the conclusion of 2016 shows a statistically significant decrease in utilization on this site compared to data collected in 2015.

**Table 32.** Upland monitoring data for AR-18A on key herbaceous species

Herbaceous						
	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>AR-18A avg.</b>	<b>40</b>	<b>30.9</b>	<b>9.9</b>	<b>25.8</b>	<b>11%</b>	<b><math>\pm 7\%</math></b>
crested wheatgrass	20	18.7	10.9	16.9	7%	$\pm 7\%$
squirreltail	20	43.2	8.9	35.3	15%	$\pm 12\%$

**Table 33.** Upland monitoring data for AG-21 on key woody species

Woody			
	Sample Size	Average Use	95% Conf. Interval
<b>AR-18A avg.</b>	<b>20</b>	<b>14%</b>	<b><math>\pm 6\%</math></b>
forage kochia	20	14%	$\pm 6\%$



**Figure 22.** AR-18A landscape photo



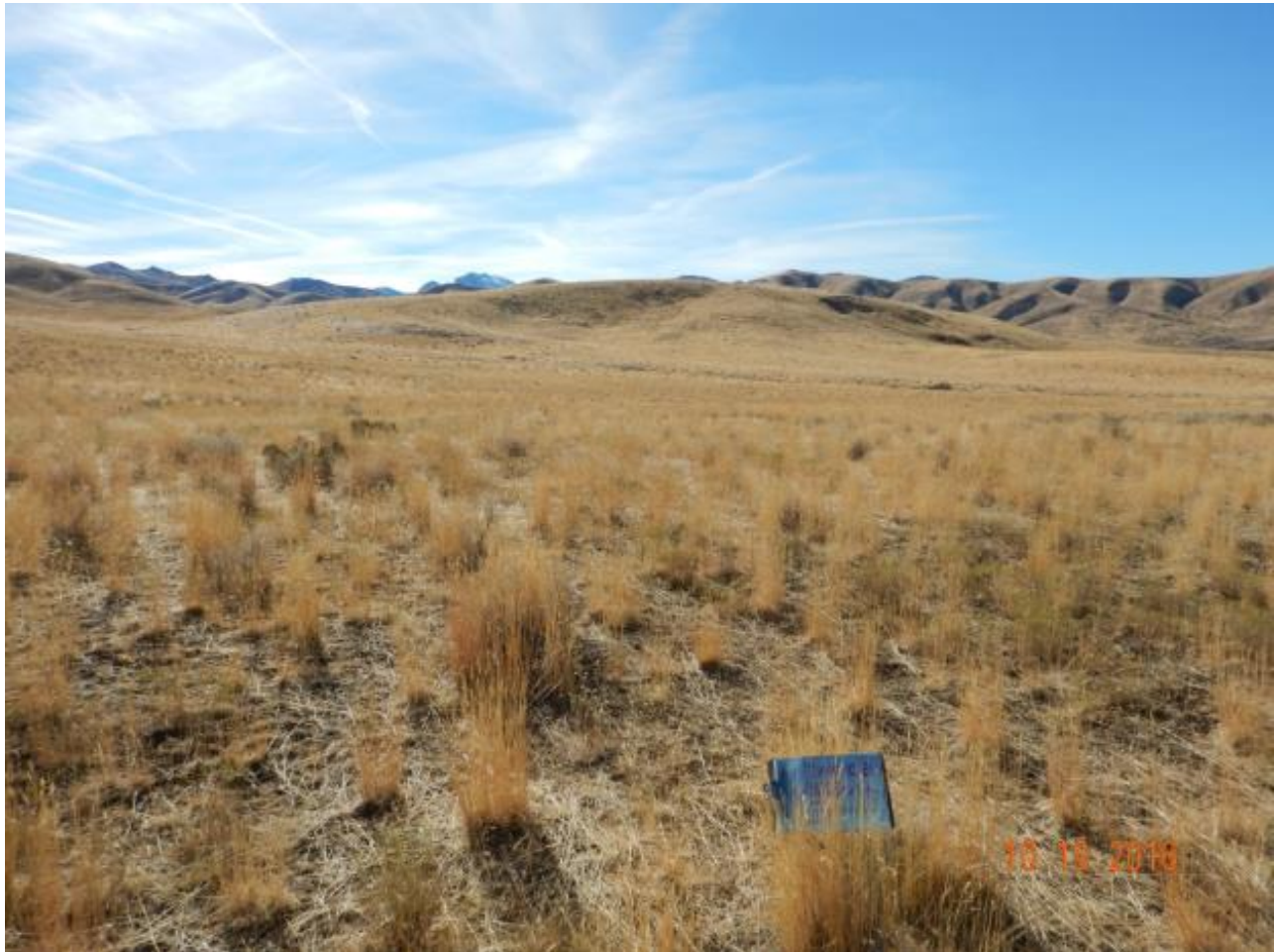
## Slaven Use Area – AG-08

**Location in UTM:** Zone 11T 522442m E 4480591m N

**Observations and Results:** At the conclusion of the grazing year in 2015, average utilization on this site was  $58\% \pm 9\%$ . The utilization level, as defined by the settlement agreement, was not met. In 2016, average observed utilization was slight to light. On this site, the utilization level was met as defined by the settlement agreement. The utilization measured at the conclusion of 2016 shows a statistically significant decrease in utilization on this site compared to data collected in 2015.

**Table 34.** Upland monitoring data for AG-08

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
AG-08 avg.	20	30.1	17.4	23.8	19%	$\pm 10\%$
crested wheatgrass	20	30.1	17.4	23.8	19%	$\pm 10\%$



**Figure 23.** AG-08 landscape photo

## South Flat Use Area – AG-04

**Location in UTM:** Zone 11T 499590m E 4468878m N

**Observations and Results:** This site is dominated by shadscale saltbush and bud sagebrush with an understory of Sandberg’s bluegrass and bottlebrush squirreltail. At the conclusion of the grazing year in 2015, average utilization on this site was  $18\% \pm 8\%$ . The utilization level, as defined by the settlement agreement, was met. In 2016, average observed herbaceous utilization was slight to light. On this site, the utilization level was met as defined by the settlement agreement.

At the conclusion of the grazing year in 2015, no utilization data on woody browse was collected. In 2016, average observed utilization was slight. On this site, the utilization level for woody species was met as defined by the settlement agreement.

**Table 35.** Upland monitoring data for AG-04 on key herbaceous species

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>AG-04 avg.</b>	<b>20</b>	<b>13.3</b>	<b>4.6</b>	<b>9.5</b>	<b>28%</b>	<b><math>\pm 9\%</math></b>
Sandberg bluegrass	20	13.3	4.6	9.5	28%	$\pm 9\%$

**Table 36.** Upland monitoring data for AG-04 on key woody species

<b>Woody</b>			
	Sample Size	Average Use	95% Conf. Interval
<b>AG-04 avg.</b>	<b>20</b>	<b>4%</b>	<b><math>\pm 2\%</math></b>
shadscale saltbush	20	4%	$\pm 2\%$

**Table 37.** Low frequency species not included

<b>Data Not Used Due to Inadequate Sample Size</b>	
	<b>Sample Size</b>
Bottlebrush squirreltail	9



**Figure 24.** AG-04 landscape photo



## Trout Creek Use Area – Trout Creek

**Location in UTM:** Zone 11T 513318m E 4467461m N

**Observations and Results:** This site is dominated by mountain sagebrush with an understory of mountain brome, Letterman’s needlegrass, Idaho fescue, and bottlebrush squirreltail. At the conclusion of the grazing year in 2015, average utilization on this site was 54%  $\pm$  7%. The utilization level, as defined by the settlement agreement, was not met. In 2016, average observed utilization was slight. On this site, the utilization level was met as defined by the settlement agreement. The utilization measured at the conclusion of 2016 shows a statistically significant improvement on annual use indicators on this site compared to data collected in 2015.

**Table 38.** Upland monitoring data for Trout Creek

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>Trout Creek avg.</b>	<b>80</b>	<b>21.2</b>	<b>8.9</b>	<b>18.0</b>	<b>12%</b>	<b><math>\pm</math> 5%</b>
Letterman’s needlegrass	20	25.0	8.6	20.7	14%	$\pm$ 10%
mountain brome	20	25.3	11.2	21.6	11%	$\pm$ 9%
squirreltail	20	15.9	10.6	15.0	2%	$\pm$ 2%
Idaho fescue	20	18.9	5.3	14.6	20%	$\pm$ 13%



**Figure 25.** Trout Creek landscape photo

## West Flat Use Area – West Flat

**Location in UTM:** Zone 11T 498127m E 4479641m N

**Observations and Results:** This site is dominated by shadscale saltbush, fourwing saltbush and greasewood. There is no herbaceous key species on this site. At the conclusion of the grazing year in 2015, average use on this site was  $2\% \pm 2\%$ . The utilization level, as defined by the settlement agreement, was met. In 2016, average observed utilization was slight. On this site, the utilization level was met as defined by the settlement agreement.

**Table 39.** Upland monitoring data for West Flat

Woody			
	Sample Size	Average Use	95% Conf. Interval
West Flat avg.	20	5%	$\pm 3\%$
shadscale saltbush	20	5%	$\pm 3\%$



**Figure 26.** West Flat landscape photo



## Whirlwind Valley Use Area

There are two upland monitoring sites within the Whirlwind Valley Use Area.

**Table 40.** Average upland monitoring data for Whirlwind Valley Use Area

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>Whirlwind Valley avg.</b>	<b>80</b>	<b>12.4</b>	<b>4.0</b>	<b>11.4</b>	<b>4%</b>	<b>± 3%</b>
Whirlwind 1 avg.	40	10.7	4.4	9.4	8%	± 5%
Whirlwind 3 avg.	40	14	N/A	14.0	0%	± 0%

### Whirlwind 1

Location in UTM: 11T 532947m E 4489173m N

**Observations and Results:** At the conclusion of the grazing year in 2015, average utilization on this site was 26% ± 13%. The utilization level, as defined by the settlement agreement, was met. In 2016, average observed utilization was slight. On this site, the utilization level was met as defined by the settlement agreement.

**Table 41.** Upland monitoring data for Whirlwind 1

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>Whirlwind 1 avg.</b>	<b>40</b>	<b>10.7</b>	<b>4.4</b>	<b>9.4</b>	<b>8%</b>	<b>± 5%</b>
squirreltail	20	8.6	3.4	7.2	10%	± 7%
Sandberg bluegrass	20	12.8	5.3	11.8	5%	± 7%



**Figure 27.** Whirlwind 1 landscape photo

## Whirlwind 3

**Location in UTM:** 11T 529348m E 4488671m N

**Observations and Results:** At the conclusion of the grazing year in 2015, average utilization on this site was  $51\% \pm 8\%$ . The utilization level, as defined by the settlement agreement, was not met. In 2016, there was no observed utilization. On this site, the utilization level was met as defined by the settlement agreement. The utilization measured at the conclusion of 2016 shows statistically significant decrease in utilization on this site compared to data collected in 2015.

**Table 42.** Upland monitoring data for Whirlwind 3

	Sample Size	Ungrazed Avg. Ht. (in)	Grazed Avg. Ht. (in)	Total Avg. Measured Height (in)	Average Utilization	95% Conf. Interval
<b>Whirlwind 3 avg.</b>	<b>40</b>	<b>14.0</b>	<b>N/A</b>	<b>14.0</b>	<b>0%</b>	<b><math>\pm 0\%</math></b>
squirreltail	20	12.4	N/A	12.4	0%	$\pm 0\%$
Sandberg bluegrass	20	15.7	N/A	15.7	0%	$\pm 0\%$



**Figure 28.** Whirlwind 3 landscape photo

## Winter Use Area – Winter

**Location in UTM:** 11T 500989m E 4491527m N

**Observations and Results:** This site is dominated by shadscale saltbush and bud sagebrush. The site is lacking key perennial grass species. At the conclusion of the grazing year in 2015, average utilization on this site was  $4\% \pm 3\%$ . The utilization level, as defined by the settlement agreement, was not met. In 2016, average observed utilization was slight. On this site, the utilization level was not met as defined by the settlement agreement.

**Table 43.** Upland monitoring data for Winter

Woody			
	Sample Size	Average Use	95% Conf. Interval
Winter avg.	20	5%	$\pm 3\%$
shadscale saltbush	20	5%	$\pm 3\%$



**Figure 29.** Winter landscape photo



# RIPARIAN MONITORING RESULTS

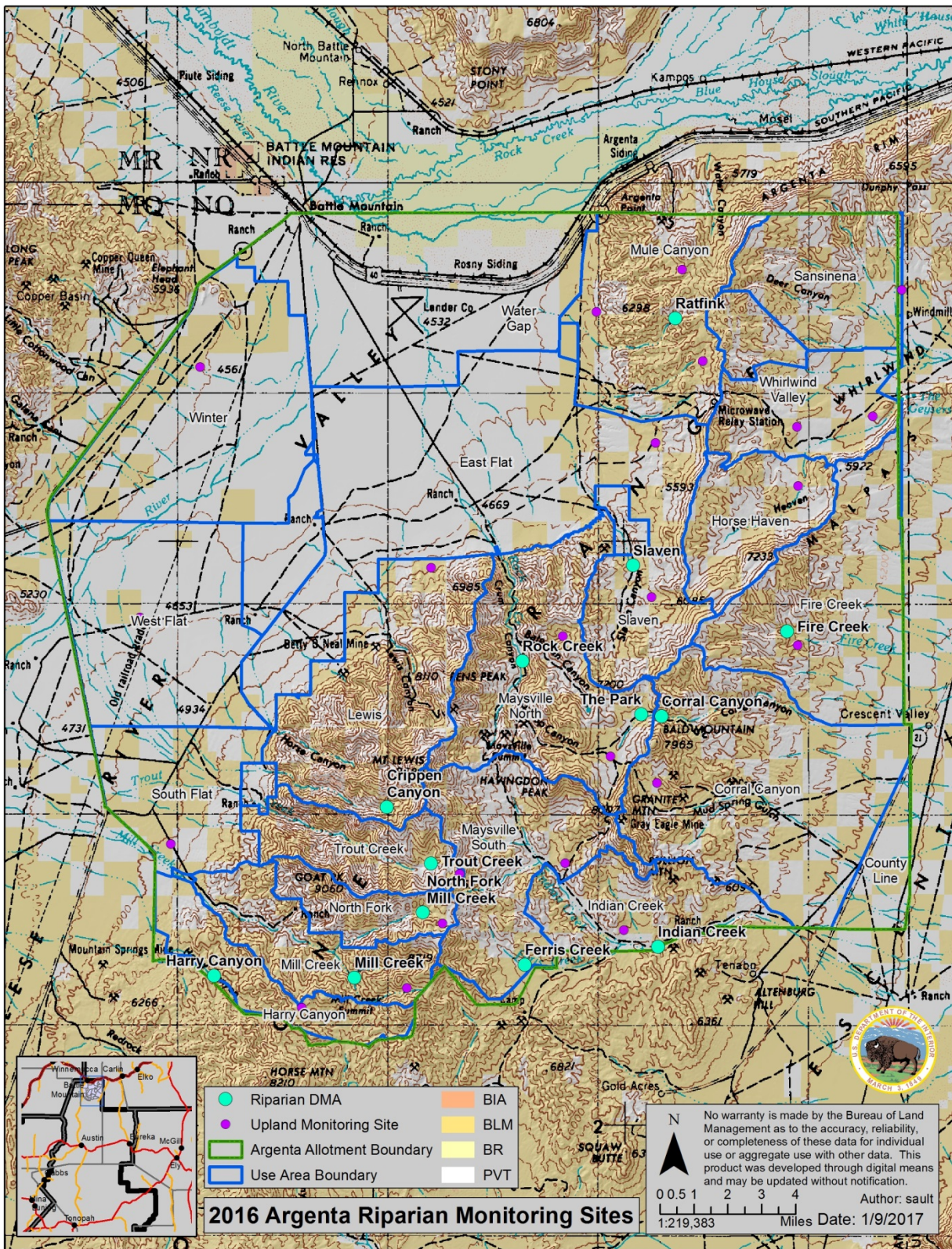


Figure 30. Map depicts the MIM Designated Monitoring Areas monitored in October 2016.



## Riparian Monitoring Methods

Riparian monitoring was conducted in accordance with the *Multiple Indicator Monitoring* (MIM) protocol. This protocol was developed to provide information necessary to adaptively manage riparian resources. The MIM protocol integrates short-term (annual-use) and long-term trend indicators to allow for the evaluation of livestock grazing management on streambanks, stream channels and streamside riparian vegetation at established riparian designated monitoring areas (DMAs). The three short-term indicators measured by the CMG for annual-use monitoring on the Argenta Allotment included stubble height, streambank alteration and woody species use. More information on the MIM protocol can be found in BLM Technical Reference 1737-23 (Burton et al. 2011). Within this report, only stubble height and woody species use are evaluated as there was no prescribed level for streambank alteration in the settlement agreement.

The MIM protocol defines stubble height as the measure of the residual height of key herbaceous vegetation species remaining after grazing. The amount of foliar cover remaining is important because it helps protect riparian systems from erosion especially during times of high stream flows. MIM uses a modified version of the stubble height method as described in the BLM Technical Reference, *Utilization Studies and Residual Measurements* (Coulloudon et al. 1996). One of the primary differences that the MIM protocol employs is the use of a 20 centimeter by 50 centimeter quadrat (i.e. a Daubenmire frame) to define the sample area. A measurement is taken for each key species present within the quadrat.

Woody species are often an important component of healthy riparian systems as they provide shade cover to keep streams cool and have deep root systems that stabilize the soil. The woody species use is an effective short-term indicator and can help define the relation between woody plant health and large herbivores. In the MIM protocol, woody plants are selected for sampling within a 2-meter by 2.75-meter quadrat that is centered on the greenline. The greenline is defined as the linear grouping of perennial vegetation, embedded rock or anchored wood that forms above and adjacent to the waterline. Only one individual of each key woody species present is selected per quadrat. Utilization is assigned to a class by the observer on an ocular basis as described in Table 44.

**Table 44.** Woody Species Use Classes and Descriptions from Technical Reference 1737-23.

Class	Midpoi	Description
Unavailable	Blank	Shrubs and trees that have most (over 50%) of their actively growing stems over 1.5m (5 feet) tall for cattle grazing.
Slight (0%-20%)	10	Browse plants appear to have little or no use. Available year's leaders may show some use.
Light (21%-40%)	30	There is obvious evidence of use of the current year's leaders. The available leaders appear cropped or browsed in patches.
Moderate (41%-60%)	50	Browse plants appear rather uniformly used.
Heavy (61%-80%)	70	The use of browse gives the general appearance of complete search by grazing animals. Most available leaders are used and some terminal buds remain on browse plants.
Severe (81%- 100)	90	The use of browse gives the appearance of complete search by grazing animals. There is grazing use on second and third years' leaders growth.

The CMG used the MIM protocol during the week of October 17-21 to evaluate the short-term indicators of livestock grazing during the 2016 grazing season at 13 riparian DMAs. As outlined in the Argenta Settlement Agreement, the end of season prescribed use levels are (1) 4-inch average stubble height on key herbaceous species and (2) 30% browse on key woody species. Key species for both indicators vary depending on the plant communities present at each DMA. Criteria for selecting key species are summarized in Burton et al. (2011, pp. 23, 24, 144).

All photos taken at riparian DMAs were taken between of October 17<sup>th</sup> and October 21<sup>st</sup>, 2017.

**Table 45.** Table represents the standard NRCS plant symbols, scientific names, common names and growth type for species observed at riparian DMAs. Under the 2015 Argenta Settlement Agreement, success is determined by woody species and herbaceous species separately.

<b>.RIPARIAN SPECIES LIST</b>			
<b>USDA Plant Code</b>	<b>Scientific Name</b>	<b>Common Name</b>	<b>Type</b>
AGST2	<i>Agrostis stolonifera</i>	Creeping bentgrass	Herbaceous
CANE2	<i>Carex nebrascensis</i>	Nebraska sedge	Herbaceous
HOBR2	<i>Hordeum brachyantherum</i>	Meadow barley	Herbaceous
JUAR2	<i>Juncus arcticus</i>	Artic rush	Herbaceous
JUEN	<i>Juncus ensifolius</i>	Swordleaf rush	Herbaceous
POPR	<i>Poa pratensis</i>	Kentucky bluegrass	Herbaceous
POMO5	<i>Polypogon monspeliensis</i>	Annual rabbitsfoot	Herbaceous
ROWO	<i>Rosa woodsii</i>	Wood's rose	Woody
SABO2	<i>Salix boothii</i>	Booth's willow	Woody
SADR	<i>Salix drummondiana</i>	Drummond's willow	Woody
SAEX	<i>Salix exigua</i>	Narrowleaf willow	Woody
SALU2	<i>Salix lutea</i>	Shining willow	Woody
SALIX	<i>Salix spp.</i>	Willow	Woody
SCMI2	<i>Scirpus microcarpus</i>	Panicled bulrush	Herbaceous

## Riparian Monitoring Summary

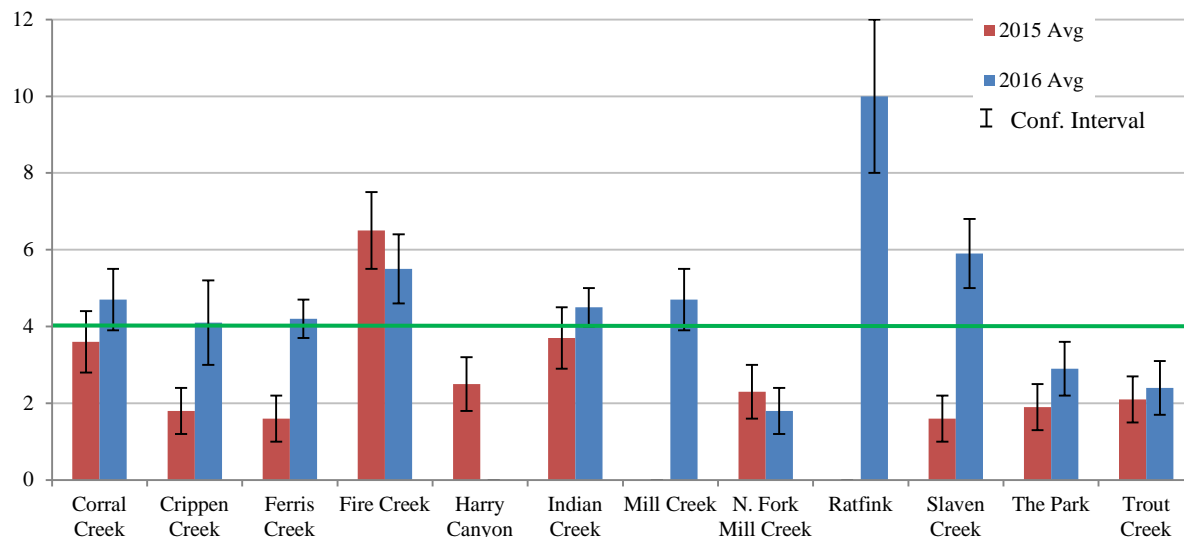
**Table 46.** Summary of 2016 riparian monitoring results related to annual-use limits in the 2015 Settlement Agreement. Dashes represent that data was not collected for that site.

Use Area	DMA	Operator	Stubble Height	Woody Use	Overall
Corral Canyon	Corral Creek	C Ranches*	Statistically Uncertain (likely to have met)	Met	Statistically Uncertain (likely to have met)
Lewis	Crippen Creek	Julian Tomera Ranches	Statistically Uncertain (likely to have met)	Met	Statistically Uncertain (likely to have met)
Maysville South	Ferris Creek	Julian Tomera Ranches	Statistically Uncertain (likely to have met)	Statistically Uncertain (likely to not have met)	Statistically Uncertain (likely to not have met)
Fire Creek	Fire Creek	Filippini Ranching	Met	Met	Met
Harry Canyon	Harry Canyon	Chiara Ranch	--	Statistically Uncertain (likely to have met)	Statistically Uncertain (likely to have met)
Indian Creek	Indian Creek	C Ranches*	Met	Statistically Uncertain (likely to not have met)	Statistically Uncertain (likely to not have met)
Mill Creek	Mill Creek	Chiara Ranch	Statistically Uncertain (likely to have met)	--	Statistically Uncertain (likely to have met)
North Fork Mill Creek	North Fork Mill Creek	Julian Tomera Ranches	Not Met	--	Not Met
Maysville North	The Park	Julian Tomera Ranches	Not Met	--	Not Met
Mule Canyon	Ratfink	Julian Tomera Ranches	Met	Met	Met
Maysville North	Rock Creek	Julian Tomera Ranches	--	Not Met	Not Met
Slaven	Slaven Creek	Julian Tomera Ranches	Met	--	Met
Trout Creek	Trout Creek	Julian Tomera Ranches	Not Met	--	Not Met

\*C Ranches is permitted to graze within the Argenta allotment, but is not a signatory party to the Argenta Settlement Agreement.

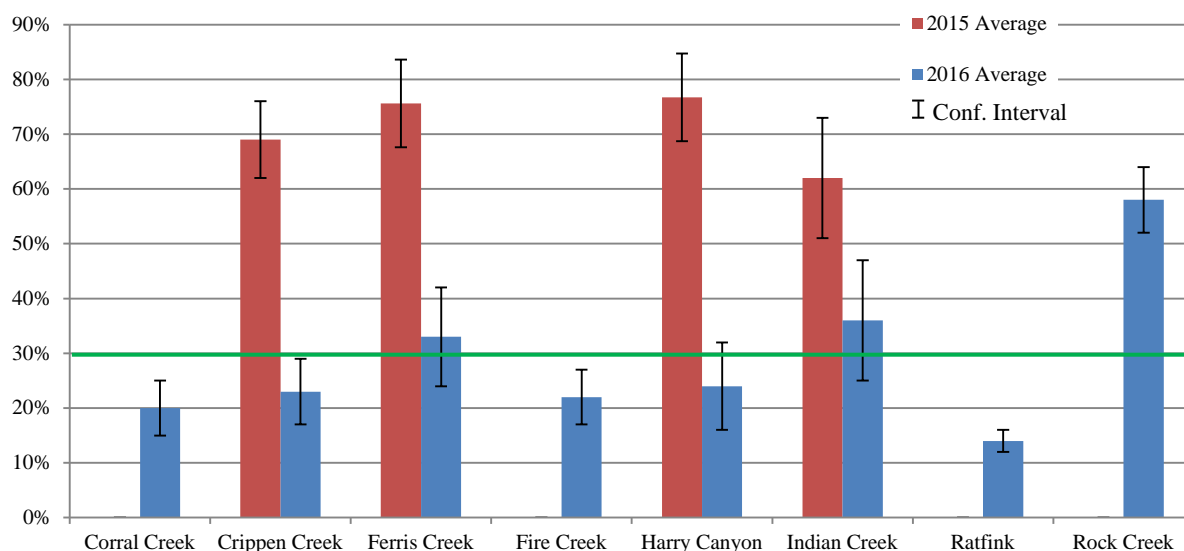
In the 2015 Argenta Settlement Agreement, success is defined as having 70% of Use Areas meeting the end of season prescribed utilization levels for upland and riparian areas. Over the duration of the interim management plan implemented by the Settlement Agreement, use areas that are either not successful or statistically uncertain will be identified for changes in stockmanship and will be prioritized for intensive monitoring to support and help ensure demonstrable improvement. The long-term goal is to strive for an aspirational goal of 100% success. At riparian DMAs, the prescribed levels are 4 inches of residual stubble height on key herbaceous species and 30% woody species use on key woody species.

In October 2016, the CMG collected stubble height, woody species use and streambank alteration data at 13 riparian DMAs across 12 use areas in the Argenta Allotment (Figure 30). Eleven of the 13 riparian DMAs were monitored for stubble height in 2016 across 11 use areas (Figure 31). Four of the 11 DMAs were successful in meeting stubble height level. Four of the 11 DMAs were statistically uncertain and were more likely to have met the prescribed use level. Three of the 11 DMAs did not meet stubble height level.



**Figure 31.** Comparison of end of season residual stubble height at DMAs in 2015 and 2016. Error bars represent 95% confidence interval. No stubble height measurements occurred at Mill Creek DMA and Ratfink DMA in 2015 and Harry Canyon DMA in 2016. The green line represents the prescribed use level as established by the 2015 Argenta Settlement Agreement.

Eight of the 13 riparian DMAs were monitored for woody species use in 2016 across 8 use areas (Figure 32). Four of the 8 DMAs were successful in meeting woody species use level. One of the 8 DMAs were statistically uncertain and were more likely to have met the browse level. Two of the 8 DMAs were statistically uncertain and were more likely to not have met the browse level. One of the 8 DMAs did not meet the woody species use level.



**Figure 32.** Comparison of end of season woody species use at DMAs in 2015 and 2016. Error bars represent 95% confidence interval. No woody browse measurements were reported for the Corral Creek, Fire Creek, Ratfink and Rock Creek DMAs in 2015. The green line represents the prescribed use level as established by the 2015 Argenta Settlement Agreement.

In sites where confidence intervals in 2016 don't overlap the confidence intervals from 2015, there is statistically significant difference in utilization (See Figure 31 for stubble height and Figure 32 for key woody species). In comparing monitoring stubble height data from 2016 compared to 2015, 3 DMAs (Crippen Creek, Ferris Creek and Slaven) show a demonstrable improvement in stubble height over the previous year. Slaven improved from not meeting the stubble height level in 2015 to meeting the stubble



height level in 2016. Both Ferris Creek and Crippen Creek improved from not meeting the stubble height level in 2015 to being statistically uncertain and more likely to have met use level in 2016.

Comparing woody species use from 2016 to 2015, 4 DMAs (Crippen Creek, Ferris Creek, Harry Canyon and Indian Creek) showed statistically significant improvement. One of those sites improved from not meeting the woody species browse level in 2015 to meeting the woody species browse level in 2016.

## Corral Canyon

**Location in UTM:** 11T 522916m E 4474937m N

**Observations and Results:** This DMA includes a mixed complex with herbaceous and woody plants. There are few key woody plants present, most of which are non-rhizomatous mature willow species; however, Woods rose was common throughout the site.

At the conclusion of 2015, stubble height was 3.6 inches  $\pm$  0.8 inches. The residual stubble height level as set by the settlement agreement was statistically uncertain. Woody browse was not reported on this site in 2015 due to an insufficient sample size. The average streambank alteration was 26%  $\pm$  7%.

At the conclusion of 2016, stubble height was 4.7 inches  $\pm$  0.8 inches. The residual stubble height level as set by the settlement agreement was statistically uncertain and was more likely to have met the level. Woody browse use was 20%  $\pm$  5%. The utilization level for woody browse was met. The average streambank alteration was 16%  $\pm$  6%.

Because this site was unsuccessful in meeting the prescribed browse level, the CMG has determined this site will be prioritized for increased within-season monitoring and a more intensive focus on stockmanship to ensure that use levels are met during the 2017 grazing year.

The Corral Canyon Use Area was used by C Ranches, a non-signatory party of the Settlement Agreement, and was not actively grazed by any of the signatory permittees this grazing year.

**Table 47.** Short-term MIM indicators collected at Corral Canyon

Year	Stubble Height			Woody Browse			Streambank Alteration		
	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size
2016	4.7	0.8	57	20%	5%	21	16%	$\pm$ 6%	85
2015	3.6	0.8	76	N/A	N/A	5	26%	$\pm$ 7%	80



**Figure 33.** Top of Corral Canyon DMA looking downstream.

## Crippen Canyon

**Location in UTM:** 11T 509860m E 4470629m N

**Observations and Results:** Crippen Creek DMA is located along a high elevation reach with a channel slope over 4%. In general, DMAs are located in reaches with gradients under 4%. However, after the stream was stratified, the reach selected for the DMA was the most sensitive complex given its combination of accessibility by livestock, sensitivity to grazing, and vegetation communities present.

At the conclusion of 2015, stubble height was 1.8 inches  $\pm$  0.6 inches. The residual stubble height level as set by the settlement agreement was not met. Woody browse use was observed at 69%  $\pm$  7%. The utilization level for woody browse was not met. The average streambank alteration was 8%  $\pm$  5%.

At the conclusion of 2016, stubble height was 4.1 inches  $\pm$  1.1 inches. The residual stubble height level as set by the settlement agreement was statistically uncertain and was more likely to have met levels. Woody browse use was observed at 23%  $\pm$  6%. The utilization level for woody browse was met. The average streambank alteration was 10%  $\pm$  5

While the confidence interval overlaps the stubble height level observed in 2016, compared to data collected in 2015 there is a statistically significant improvement on both annual use indicators. Because the results on woody browse and stubble height are statically uncertain of success, the CMG has determined this site will be prioritized for increased within-season monitoring and a more intensive focus on stockmanship to ensure that levels are met during the 2017 grazing year.

**Table 48.** Short-term MIM indicators collected at Crippen Canyon

Year	Stubble Height			Woody Browse			Streambank Alteration		
	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size
2016	4.1	1.1	31	23%	6%	41	10%	$\pm$ 5%	78
2015	1.8	0.6	102	69%	7%	29	8%	$\pm$ 5%	80



**Figure 34.** Bottom of Crippen Canyon DMA looking upstream

## Ferris Creek

**Location in UTM:** 11T 516428m E 4463145m N

**Observations and Results:** The Ferris Creek DMA has a mix of both herbaceous and woody riparian plants. Willows occur in two distinct age/size classes. The older willow plants are largely unavailable to grazing and thriving; the younger plants are showing clubbing from chronically high levels of browse, which tend to prevent them from reaching taller height classes and older age classes. Towards the downstream end of this DMA, the stream channel is not well defined and appears to be more of a lentic (still water) system than lotic (stream) system. The MLFO has issued a Final Decision which would exclose most of the federally owned riparian area from grazing and would include the DMA (Round 2 fencing project). At the time of writing, the exclosure has not been constructed.

At the conclusion of 2015, stubble height was 1.6 inches  $\pm$  0.6 inches. The residual stubble height level as set by the settlement agreement was not met. Woody browse use was observed at 76%  $\pm$  0.8%. The utilization level for woody browse was not met. The average streambank alteration was 41%  $\pm$  9%.

At the conclusion of 2016, stubble height was 4.2 inches  $\pm$  0.5 inches. The residual stubble height level as set by the settlement agreement was statistically uncertain and was more likely to have met. Woody browse use was observed at 33%  $\pm$  9%. The utilization level for woody browse was statistically uncertain and was more likely to have not met. The average streambank alteration was 28%  $\pm$  8%.

While the confidence intervals overlap the prescribed use levels in both stubble height and woody browse observed in 2016, when compared to data collected in 2015 there is a statistically measurable improvement on both annual use indicators. Because the use levels on this site are statistically uncertain, the CMG has determined this site will be prioritized for increased within-season monitoring and a more intensive focus on stockmanship to ensure that prescribed use levels are met during the 2017 grazing year.

**Table 49.** Short-term MIM indicators collected at Ferris Creek

Year	Stubble Height			Woody Browse			Streambank Alteration		
	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size
2016	4.2	0.5	65	33%	9%	23	28%	$\pm$ 8%	90
2015	1.6	0.6	72	76%	8%	18	41%	$\pm$ 9%	74





**Figure 35.** Top of Ferris Creek DMA looking downstream

## Fire Creek

**Location in UTM:** 11T 528886m E 4478962m N

**Observations and Results:** Fire Creek DMA contains an herbaceous complex with abundant panicked bulrush, Nebraska sedge, and Baltic rush. Woods' rose is common and located along the channel margin. Although it is not generally considered a key woody species, it provides important protection to the banks by limiting animal access. Where rose is present, bank alteration is low or absent.

At the conclusion of 2015, stubble height was 6.5 inches  $\pm$  1.0 inches. The residual stubble height level as set by the settlement agreement was met. Woody browse was not observed on this site in 2015 because woody key species were identified. The average streambank alteration was 42%  $\pm$  9%.

At the conclusion of 2016, stubble height was 5.5 inches  $\pm$  0.9 inches. The residual stubble height level as set by the settlement agreement was met. Woody browse use was observed at 22%  $\pm$  5%. Woods rose was added as a key species in 2016 because observations by the CMG in 2015 and 2016 across the Argenta Allotment indicated that there was likely use occurring on this species. The utilization level for woody browse was met. The average streambank alteration was 40%  $\pm$  9%.

This site was identified by the NRST as a priority for improvement through the exclusion of livestock through jackrail fencing and the stabilization of knickpoints or headcuts. The exclosure was originally planned to be analyzed through an EA written by the MLFO (Round 2 projects); however, Klondex (a gold and silver mine that operates adjacent to Fire Creek) expressed a desire to analyze, purchase materials for and install the jackrail fencing as mitigation. Within the scope of this project, Klondex is proposing to provide stream channel stabilization and off-site stock water projects. At the time of writing, the NEPA analysis (EA) has not been completed.

**Table 50.** Short-term MIM indicators collected at Fire Creek

Year	Stubble Height			Woody Browse			Streambank Alteration		
	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size
2016	5.5	0.9	120	22%	5%	79	40%	$\pm$ 9%	83
2015	6.5	1.0	145	N/A	N/A	N/A	42%	$\pm$ 9%	83



**Figure 36.** Bottom of Fire Creek DMA looking upstream

## Harry Canyon

**Location in UTM:** 11T 501648 4462619

**Observations and Results:** This monitoring site occurs within a defined stream channel, and it primarily exhibits lentic (still water) characteristics. There is a distinct ecotone on this site as the site changes from well-watered at the upstream end of the monitoring site to poorly watered at the downstream end of the monitoring site. There is a water diversion for a stock water trough upstream of this monitoring site, which may be contributing to dewatering the reach.

At the conclusion of 2015, stubble height was 2.5 inches  $\pm$  0.7 inches. The residual stubble height level as set by the settlement agreement was not met. Woody browse use was observed at 77%  $\pm$  8%. The utilization level for woody browse was not met. The average streambank alteration was 31%  $\pm$  8%.

When this site was visited in October 2016, the lower end of the monitoring site had dried out. It was determined that measuring herbaceous vegetation was not appropriate due to a steep moisture gradient and its effect on herbaceous species within the monitoring site. Woody species at the site are capable of drawing on surface and subsurface water; and therefore woody browse can be evaluated at this site. Woody browse use was observed at 24%  $\pm$  8%. The utilization level for woody browse was statistically uncertain and was more likely to have met. The average streambank alteration was 31%  $\pm$  8%.

While the confidence interval overlaps the woody species prescribed use level in 2016, when compared to data collected in 2015 there is a statistically significant improvement on annual use indicators. Because the results on woody browse are statically uncertain of success, the CMG has determined this site will be prioritized for increased within-season monitoring and a more intensive focus on stockmanship to ensure that levels are met during the 2017 grazing year.

**Table 51.** Short-term MIM indicators collected at Harry Canyon

Year	Stubble Height			Woody Browse			Streambank Alteration		
	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size
2016	N/A	N/A	N/A	24%	8%	26	18%	$\pm$ 6%	81
2015	2.5	0.7	99	77%	8%	18	31%	$\pm$ 8%	80





**Figure 37.** Bottom of Harry Canyon DMA looking upstream

## Indian Creek

**Location in UTM:** 11T 522762m E 4463989m N

**Observations and Results:** This DMA was moved from where it was located last year. The previous DMA was within an intermittent reach. The new DMA was stratified and reviewed by the CMG in summer 2016 and was established upstream where hydric riparian species were present indicating the reach was perennial and a high-water table was maintained throughout the growing season.

At the conclusion of 2015, stubble height was 3.7 inches  $\pm$  0.8 inches. The residual stubble height level as set by the settlement agreement was statistically uncertain. Woody browse use was observed at 62%  $\pm$  11%. The utilization level for woody browse was not met. The average streambank alteration was 15%  $\pm$  6%.

At the conclusion of 2016, stubble height was 4.5 inches  $\pm$  0.5 inches. The residual stubble height level as set by the settlement agreement was met. Woody browse use was observed at 36%  $\pm$  11%. The utilization level for woody browse was statistically uncertain and was likely to not have met. The average streambank alteration was 39%  $\pm$  1%.

The Indian Creek Use Area was used by C Ranches, a non-signatory party of the Settlement Agreement, and was not actively grazed by any of the signatory permittees this grazing year.

While the confidence interval overlaps the woody species prescribed use level in 2016, when compared to data collected in 2015 there is a statistically significant improvement on annual use indicators. Because the results on stubble height did not meet utilization levels and because the results on woody browse are statically uncertain of success, the CMG has determined this site will be prioritized for more intensive within-season monitoring and increased focus on stockmanship to ensure that levels are met during the 2017 grazing year.

Year	Stubble Height			Woody Browse			Streambank Alteration		
	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size
2016	4.5	0.5	50	36%	11%	18	39%	$\pm$ 1%	98
2015	3.7	0.8	60	62%	11%	24	15%	$\pm$ 6%	79

**Table 52.** Short-term MIM indicators collected at Indian Creek



**Figure 38.** Bottom of Indian Creek DMA looking upstream

## Mill Creek

**Location in UTM:** 11T 508319 4462523

**Observations and Results:** This site was not monitored at the conclusion of the 2015 grazing season. In spring 2016, a small jackrail exclosure was installed on this site. This DMA was monitored to compare the recovery from the exclosure. In October, it was evident that livestock use was present within the exclosure.

At the conclusion of 2016, stubble height was 4.7 inches  $\pm$  0.8 inches. The residual stubble height level as set by the settlement agreement was statistically uncertain and was likely to have met. Woody browse was on collected on this site due to no key species being identified. The average streambank alteration was 40%  $\pm$  9%.

Because the results on stubble height are statically uncertain of success, the CMG has determined this site will be prioritized for increased within-season monitoring and a more intensive focus on stockmanship to ensure that levels are met during the 2017 grazing year.

Year	Stubble Height			Woody Browse			Streambank Alteration		
	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size
2016	4.7	0.8	76	N/A	N/A	N/A	40%	$\pm$ 9%	75

**Table 53.** Short-term MIM indicators collected at Mill Creek



**Figure 39.** Top of Mill Creek DMA looking downstream



## North Fork Mill Creek

**Location in UTM:** 11T 511570m E 4465620m N

**Observations and Results:** The North Fork of Mill Creek has a mix of lentic and lotic characteristics and is dominated by early successional, low-stabilizing, hydric herbaceous species with no woody species present at the site. This DMA has a jackrail enclosure upstream that was installed in the summer of 2016. The MLFO has issued a Final Decision to extend the existing enclosure for  $\frac{3}{4}$  mile downstream, which will include the existing DMA. At the time of writing, the enclosure has not been constructed.

At the conclusion of 2015, stubble height was 2.3 inches  $\pm$  0.7 inches. The residual stubble height level as set by the settlement agreement was not met. Woody browse was not collected on this site due to no key species being present. The average streambank alteration was 15%  $\pm$  6%.

At the conclusion of 2016, stubble height was 1.8 inches  $\pm$  0.6 inches. The residual stubble height level as set by the settlement agreement was not met. Woody browse was not collected on this site due to no key species being identified. The average streambank alteration was 35%  $\pm$  8%.

In 2016, livestock drift from other use areas was a major issue. To address this in 2017, Julian Tomera Ranches is working with a private land owner to install drift fences to control livestock from moving into the canyon. Because prescribed use levels were not met, the CMG has determined this site will be prioritized for increased within-season monitoring and a more intensive focus on stockmanship to ensure that prescribed use levels are met during the 2017 grazing year.

**Table 54.** Short-term MIM indicators collected at North Fork Mill Creek.

Year	Stubble Height			Woody Browse			Streambank Alteration		
	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size
2016	1.8	0.6	108	N/A	N/A	N/A	35%	$\pm$ 8%	82
2015	2.3	0.7	130	N/A	N/A	N/A	15%	$\pm$ 6%	83



**Figure 40.** Bottom of North Fork Mill Creek DMA looking upstream

## The Park

**Location in UTM:** 11T 521958m E 4475021 m N

**Observations and Results:** A high water table maintains a hydric herbaceous community dominated by Arctic rush and Nebraska sedge. There are no riparian shrubs or trees in the Park DMA.

At the conclusion of 2015, stubble height was 1.9 inches  $\pm$  0.6 inches. The residual stubble height level as set by the settlement agreement was not met. Woody browse was not collected on this site due to no key species being identified. The average streambank alteration was 42%  $\pm$  9%.

At the conclusion of 2016, stubble height was 2.9 inches  $\pm$  0.7 inches. The residual stubble height level as set by the settlement agreement was not met. Woody browse was not collected on this site due to no key species being identified. The average streambank alteration was 36%  $\pm$  9%.

Because the results on stubble height are show this site was not successful in meeting the prescribed use level, the CMG has determined this site will be prioritized for increased within-season monitoring and a more intensive focus on stockmanship to ensure that prescribed use levels are met during the 2017 grazing year. Additionally, The NRST has recommended to Julian Tomera Ranches and the Bureau of Land Management to exclose the public land within the park complex with temporary electric fence for a few years to jump start recovery.

**Table 55.** Short-term MIM indicators collected at The Park

Year	Stubble Height			Woody Browse			Streambank Alteration		
	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size
2016	2.9	0.7	71	N/A	N/A	N/A	36%	$\pm$ 9%	81
2015	1.9	0.6	129	N/A	N/A	N/A	42%	$\pm$ 9%	85



**Figure 41.** Lower end of The Park DMA looking upstream

## Ratfink Canyon

**Location in UTM:** 11T 523579m E 4493819m N

**Observations and Results:** This DMA is located in a canyon that experienced a severe, high-magnitude discharge event in 2015; as a result, it was not monitored in 2015, as there was little evidence of riparian plant establishment along the scour line. In the spring of 2016, a jackrail exclosure was constructed along part of Ratfink Canyon and includes the existing DMA. At the conclusion of the 2016 grazing year, the CMG monitored this DMA to track recovery within the exclosure.

At the conclusion of 2016, stubble eight was 10.0 inches  $\pm$  2.0 inches. The residual stubble height level as set by the settlement agreement was met. Woody browse use was observed at 14%  $\pm$  2%. The utilization level for woody browse was met. The average streambank alteration was 0%  $\pm$  0%.

**Table 56.** Short-term MIM indicators collected at Ratfink Canyon

Year	Stubble Height			Woody Browse			Streambank Alteration		
	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size
2016	10.0	2.0	21	14%	2%	122	0%	$\pm$ 0%	85



**Figure 42.** Bottom of Raftink DMA looking upstream



## Rock Creek

**Location in UTM:** 11T 516286m E 4477361m N

**Observations and Results:** Previous to 2016, the CMG had tried to establish a DMA within the Rock Creek Drainage in the Maysville North Use Area. During the summer of 2016, a CMG Technical group stratified riparian reaches in North Maysville in accordance with methods outlined in the MIM technical reference and established a new DMA at Rock Creek. This site has a cobble substrate and should support willow communities. There are small willows throughout the DMA that are heavily clubbed from chronically high levels of browse, which may be preventing the willows from reaching taller height classes and older age classes.

The CMG only monitored for woody browse as most of the herbaceous vegetation present was mostly senescent and difficult to identify at this late stage. In addition, the herbaceous species appear to be predominantly non-stabilizing species, which play little role in stabilizing this complex. Additionally, the lower end of the DMA became intermittent. Woody browse was still collected because the shallow water table should still support a willow community.

Woody browse use was observed at  $58\% \pm 6\%$ . The utilization level for woody browse was not met. The average streambank alteration was  $3\% \pm 4\%$ . Because this site clearly was not successful in meeting the prescribed use level, the CMG has determined this site will be prioritized for more intensive within-season monitoring and increased focus on stockmanship to help ensure that prescribed use levels are met during the 2017 grazing year.

Below the DMA is a drift fence that prevents livestock from moving out to the flats and may be concentrating use on this site. The NRST has recommended to Julian Tomera Ranches and the BLM to open access gates through the drift fence to allow livestock to move through earlier before woody browse is the preferred forage; and to install temporary electric fence to allow rest and jump start recovery. Additionally this site will be the focus of increased monitoring and a more intensive stockmanship program to help ensure that prescribed use levels are met during the 2017 grazing year.

**Table 57.** Short-term MIM indicators collected at Rock Creek

Year	Stubble Height			Woody Browse			Streambank Alteration		
	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size
2016	N/A	N/A	N/A	58%	6%	80	3%	$\pm 4\%$	95





**Figure 43.** Bottom of Rock Creek DMA looking upstream

## Slaven Creek

**Location in UTM:** 11T 521559m E 4482096m N

**Observations and Results:** Slaven Creek DMA is in a fairly straight channel. Cobble and gravel are common in this reach; this material partially armors the site. Herbaceous vegetation within the DMA is dominated by early successional, low stabilizing species; there were no woody species present. In the spring of 2016, a jackrail exclosure was constructed to protect a majority of the riparian on federally owned land which includes the DMA.

At the conclusion of 2015, stubble height was 1.6 inches  $\pm$  0.6 inches. The residual stubble height level as set by the settlement agreement was not met. The average streambank alteration was 32%  $\pm$  8%.

At the conclusion of the 2016 grazing year, the CMG monitored this DMA to track recovery within the exclosure. At the conclusion of 2016, stubble height was 5.9 inches  $\pm$  0.9 inches. The residual stubble height level as set by the settlement agreement was met. The average streambank alteration was 1%  $\pm$  4%.

Comparing observations from 2016 to 2015, there is a statistically significant improvement in stubble height.

**Table 58.** Short-term MIM indicators collected at Slaven Creek

Year	Stubble Height			Woody Browse			Streambank Alteration		
	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size
2016	5.9	0.9	95	N/A	N/A	N/A	1%	$\pm$ 4%	76
2015	1.6	0.6	126	N/A	N/A	N/A	32%	$\pm$ 8%	81



**Figure 44.** Bottom of Slaven Creek DMA looking upstream



## Trout Creek

**Location in UTM:** 11T 511969m E 4467945m N

**Observations and Results:** Trout Creek DMA was established in 2015 to address concerns over the previous site that was affected by a road crossing and by topography. The DMA is partially armored with cobble.

At the conclusion of 2015, stubble height was 2.1 inches  $\pm$  0.6 inches. The residual stubble height level as set by the settlement agreement was not met. No woody browse was collected on this site due to an insufficient sample size of key species. The average streambank alteration was 23%  $\pm$  7%.

At the conclusion of 2016, stubble height was 2.4 inches  $\pm$  0.7 inches. The residual stubble height level as set by the settlement agreement was not met. No woody browse was collected on this site due to an insufficient sample size of woody riparian plants. The average streambank alteration was 35%  $\pm$  8%.

Because the results on stubble height show this site was not successful, the CMG has determined this site will be prioritized for increased within-season monitoring and a more intensive focus on stockmanship to help ensure that prescribed use levels are met during the 2017 grazing year.

**Table 59.** Short-term MIM indicators collected at Trout Creek

Year	Stubble Height			Woody Browse			Streambank Alteration		
	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size	Average	Confidence Interval	Sample Size
2016	2.4	0.7	71	N/A	N/A	N/A	35%	$\pm$ 8%	81
2015	2.1	0.6	135	N/A	N/A	1	23%	$\pm$ 7%	82



**Figure 45.** Top of Trout Creek DMA looking downstream

**Operator Submitted Actual Use for 2016**  
**Julian Tomera Ranches, Inc**

Form 4130-5  
(June 2015)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0041  
Expires: October 31, 2017

**ACTUAL GRAZING USE REPORT**

Dear Grazing Operator:

In accordance with the terms and conditions of the permit or lease with authorizes your grazing use, please complete this form and return to the Field Office within 15 days after completing your authorized grazing use (43 CFR 4130.3-2(d)). This information, along with other studies data, is needed to evaluate the effectiveness of present management. Use a separate line for every day that you either turn livestock in or take livestock out of an allotment or pasture. Your cooperation in providing accurate information will be appreciated.

Allotment (Name and Number)				FOR BUREAU OF LAND MANAGEMENT (BLM) USE ONLY				
Argenta 20001								
ACTUAL GRAZING USE				CALCULATION OF AUM'S GRAZING USE				
PASTURE	DATE mm/dd/yyyy	NUMBER AND KIND OR CLASS OF LIVESTOCK		NO. AND KIND OF LIVE- STOCK	GRAZING PERIOD		% PL USE	AUM'S
		TURNED IN	TAKEN OUT		BEGIN	END		
20001 Argenta								
Mule Canyon	3/15/2016	435 C	6/25/16-- 7/2/16					
Mule Canyon	3/16/2016	120 C	6/25/16--7/2/16					
Mule Canyon	3/17/2016	39 C	6/25/16--7/2/16					
Mule Canyon Cattle put	on East Flat							
South Flat	3/26/2016	154 C	All off by 7/15					
East Flat	4/8/2016	100 C	All off by 7/15					
East Flat	4/11/2016	209 C	All off by 7/15					
East Flat	4/17/2017	32 C	All off by 7/16					
East Flat	5/7/2016	206 C	All off by 7/16					
Burn	4/22/2016	207 C	All off by 7/16					
West Flat	4/29/2016	88 C	All off by 7/16					
Argenta Allotment	5/17/2016	150 Bulls						
Cattle were moved from	Flats to the	mountain by	7/15/2016					
and moved back to the	Flats from	9/1/2016 to	10/31/2016					
Winter Range	9/31/2016	500 C	12/24/2016					

I CERTIFY That this is a complete and accurate report of my grazing use.

Signature of Permittee/Lessee <i>Julian Tomera</i>	Printed Name of Permittee/Lessee Julian Tomera Ranches, Inc	Date 1/15/2017
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Title U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statement or presentations as to any matter within its jurisdiction.

(Continued on page 2)



Operator		Submitted		1/15/2017							
Operator		Julian Tomera Ranches									
Allotment	Pasture	Date	Turned In	Taken Out	Type	Number	Type	Begin	End	%PL Use	AUMs
Argenta	Mule Canyon	3/15	435		Cattle	435	Cattle	3/15	7/2	56	873
Argenta	Mule Canyon	7/2		435	Cattle	120	Cattle	3/16	7/2	56	239
Argenta	Mule Canyon	3/16	120		Cattle	39	Cattle	3/17	7/2	56	77
Argenta	Mule Canyon	7/2		120	Cattle						-
Argenta	Mule Canyon	3/17	39		Cattle						-
Argenta	Mule Canyon	7/2		39	Cattle						-
Argenta	South Flat	3/26	154		Cattle	154	Cattle	3/26	7/15	56	315
Argenta	South Flat	7/15		154	Cattle						-
Argenta	East Flat	4/8	100		Cattle	100	Cattle	4/8	7/15	56	180
Argenta	East Flat	7/15		100	Cattle	209	Cattle	4/11	7/15	56	366
Argenta	East Flat	4/11	209		Cattle	32	Cattle	4/17	7/15	56	52
Argenta	East Flat	7/15		209	Cattle	206	Cattle	5/7	7/15	56	262
Argenta	East Flat	4/17	32		Cattle						-
Argenta	East Flat	7/15		32	Cattle						-
Argenta	East Flat	5/7	206		Cattle						-
Argenta	East Flat	7/15		206	Cattle						-
Argenta	Burn	4/22	207		Cattle	207	Cattle	4/22	7/16	56	324
Argenta	Burn	7/16		207	Cattle						-
Argenta	All	5/17	150		Bulls	150	Bulls	5/17	12/24	56	610
Argenta	All	12/24		150	Bulls						-
Argenta	Winter Range	9/30	500		Cattle	500	Cattle	9/30	12/24	56	782
Argenta	Winter Range	12/24		500	Cattle						-
Argenta	Mountain*	7/15	1,000		Cattle	1000	Cattle	7/15	10/31	56	1,988
Argenta	Mountain*	10/31		1,000	Cattle						-
Argenta	Flats*	9/1	1,000		Cattle	1000	Cattle	9/1	10/31	56	1,105
Argenta	Flats*	10/31		1,000	Cattle						-

Row Labels	AUMs
<b>Argenta</b>	<b>7,173</b>
Mule Canyon	1,188
South Flat	315
East Flat	860
Burn	324
All	610
Winter Range	782
Flats*	1,105
Mountain*	1,988
<b>Grand Total</b>	<b>7,173</b>

**Notes:** The Mountain use areas were lumped because there was considerable drift between use areas during the use on the mountain. Additionally the livestock were not run as one herd and were turned out into many of the mountain use areas at one time. Additionally, this operator claimed 56% PL during billing. The reported Actual Use AUMs reflect Federal AUMs only.

\* Mountain Refers to the Slaven, Maysville North, Maysville South, Lewis, Trout Creek, North Fork and Mill Creek Use Areas.

\*\* Flats refers to the East, West and South Flat Use Areas.

FORM APPROVED  
OMB NO 1004-0041  
Expires August 31, 2014

**Dear Grazing Operator:**

RECEIVED-MAILROOM

2017 JAN 20 A 11: 11

In accordance with the terms and conditions of the permit or lease which authorizes your grazing use, please complete this form and return to the Field Office within 15 days after completing your authorized grazing use (43 CFR 4130.3-2(d)). This information, along with other studies data, is needed to evaluate the effectiveness of present management. Use a separate line for every day that you either turn livestock in or take livestock out of an allotment or pasture. Your cooperation in providing accurate information will be appreciated.

**Allotment (Name and Number)**

**FOR BUREAU OF LAND MANAGEMENT (BLM) USE ONLY**

[illegible]

**I CERTIFY That this is a complete and accurate report of my grazing use.**

**Signature of Permittee/Lessee**

Date 1-15-17

Title 18 U.S.C. Section 1001. makes it a crime for any person knowingly and willfully 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.

(Continued on page 2)

Remarks (Include other information such as death losses, disease, and unauthorized use by strays.):

- \* From 4-1-2016 and 8-23-2016 approximately 114 head drifted in to Whirlwind Valley.
- \* On 8-20-16 we brought 11 head home.
- \* Mid Sept. we brought 3 bulls home.

#### NOTICES

The Privacy Act and 43 CFR 2.48(d) require that you be furnished with the following information in connection with information requested by this form.

**AUTHORITY:** 43 U.S.C. 315, 316, 1701, 1901, 1181d, and 43 CFR 4100.

**PRINCIPAL PURPOSE:** Information will be used to document the actual amount of livestock grazing use on the public lands to calculate your billing, and to help evaluate the effectiveness of management actions in meeting resource management objectives.

**ROUTINE USES:** In accordance with the Bureau of Land Management's (BLM) System of Records Notice published in the Federal Register on December 29, 2010 (Bureau of Land Management's Range Management System—Interior, LLM-2; Notice To Amend an Existing System of Records: Privacy Act of 1974; as Amended), names and addresses provided by the applicant on this form will be publically available in reports on the BLM public website.

**EFFECT OF NOT PROVIDING INFORMATION:** Disclosure of the information is required to obtain or retain a benefit. Failure to submit all of the requested information or to complete this form may result in delayed payment due the Government or insufficient data needed to manage the program.

The Paperwork Reduction Act requires us to inform you that: BLM collects this information to document the purpose, need, and other information for grazing use on the public lands. Response to this request is required to obtain or retain a benefit. You do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 15 minutes per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to: U.S. Department of the Interior, Bureau of Land Management (1004-0041), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Room 2134LM, Washington, D.C. 20240

Operator	Filippini Ranching Co.		Submitted		1/15/2017						
Allotment	Pasture	Date	Turned In	Taken Out	Type	Number	Type	Begin	End	%PL Use	AUMs
Argenta	Fire Creek	3/16	178		Cattle	20	Cattle	3/16	7/15	100	80
Argenta	Fire Creek	3/18	178		Cattle	90	Cattle	3/16	7/19	100	370
Argenta	Fire Creek	3/21	40		Cattle	68	Cattle	3/16	8/14	100	338
Argenta	Fire Creek	7/19		90	Cattle	178	Cattle	3/18	8/14	100	872
Argenta	Fire Creek	7/15*		20	Cattle	40	Cattle	3/21	8/14	100	192
Argenta	Fire Creek	8/14		286	Cattle						-
Argenta/Geyser		7/15*	20		Cattle	20	Cattle	7/15	9/11	100	38
Argenta/Geyser		7/19	90		Cattle	90	Cattle	7/19	9/11	100	160
Argenta/Geyser		8/24	286		Cattle	90	Cattle	8/24	9/11	100	53
Argenta/Geyser		9/11		200	Cattle	196	Cattle	8/24	11/23	100	586
Argenta/Geyser		9/11	200		Cattle	86	Cattle	8/24	11/23	100	257
Argenta/Geyser		11/23		390	Cattle	200	Cattle	9/11	11/23	100	480

Row Labels	AUMs
<b>Argenta</b>	<b>1,851</b>
Fire Creek	1,851
<b>Argenta/Geyser</b>	<b>1,575</b>
(blank)	1,575
<b>Grand Total</b>	<b>3,426</b>

**Notes:**

Argenta/Geyser refers to the Sansinena, Whirlwind Valley and Horse Haven Use Areas plus the adjacent Geyser Allotment to the East. These are lumped because there is drift between these management boundaries.

\* Sometime between 4/1 and 8/23 drift moved between Fire Creek and Argenta/Geyser



Form 4130-5  
(June 2015)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO 1004-0041  
Expires October 31, 2017

## ACTUAL GRAZING USE REPORT

RECEIVED-MAILROOM

**Dear Grazing Operator:**

2017 FEB -9 P 4: 35

In accordance with the terms and conditions of the permit or lease with authorizes your grazing use, please complete this form and return to the BUREAU OF LAND MANAGEMENT, Field Office within 15 days after completing your authorized grazing use (43 CFR 4130.3-2(d)). This information, along with other studies data, is needed to evaluate the effectiveness of present management. Use a separate line for every day that you either turn livestock in or take livestock out of an allotment or pasture. Your cooperation in providing accurate information will be appreciated.

Allocation (Name and Number)

FOR BUREAU OF LAND MANAGEMENT (BLM) USE ONLY

[illegible]

I CERTIFY That this is a complete and accurate report of my grazing use.

Signature of Permittee/Lessee

Printed Name of Permittee/Lessee

Date \_\_\_\_\_

Title U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statement or presentations as to any matter within its jurisdiction.

(Continued on page 2)

March 1, 2016 we turned our cattle out on the south side of Mill Creek, Harry Canyon, above the Goat Ranch. June 2 and 3rd we pushed the cows, that had not already gone up on their own, up Mill Creek.

October 28, 2016 - we pushed 12 head of our cattle out of North Fork (Mill Creek) and 50+ Lomera cattle. We rode South Fork, Middle Fork and Cedar Canyons Oct 29, 30 and pushed cattle to the flat.

NOTICES

The Privacy Act and 43 CFR 2.48(d) require that you be furnished with the following information in connection with information requested by this form.

**AUTHORITY:** 43 U.S.C. 315, 316, 1701, 1901, 1181d, and 43 CFR 4100

**PRINCIPAL PURPOSE:** Information will be used to document the actual amount of livestock grazing use on the public lands to calculate your billing, and to help evaluate the effectiveness of management actions in meeting resource management objectives.

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<b>Operator</b>		Chiara Ranch		<b>Submitted</b>		2/8/2017					
<b>Allotment</b>	<b>Pasture</b>	<b>Date</b>	<b>Turned In</b>	<b>Taken Out</b>	<b>Type</b>	<b>Number</b>	<b>Type</b>	<b>Begin</b>	<b>End</b>	<b>%PL Use</b>	<b>AUMs</b>
Argenta		3/1	184		Cattle	184	Cattle	3/1	11/28	100	1,645
Argenta		3/4	4		Cattle	4	Cattle	3/4	11/28	100	35
Argenta		3/31	7		Cattle	7	Cattle	3/31	11/30	100	56
Argenta		11/28		188	Cattle						-
Argenta		11/30		7	Cattle						-
Argenta		5/28	10		Bulls	8	Bulls	5/28	11/28	100	48
Argenta		11/28		8	Bulls	2	Bulls	5/28	11/30	100	12
Argenta		11/30		2	Bulls						-

<b>Row Labels</b>	<b>AUMs</b>
<b>Argenta</b>	<b>1,798</b>
Cattle	1,737
Bulls	61
<b>Grand Total</b>	<b>1,798</b>

## 2017 STOCKMANSHIP PLAN

### Background:

The signatory Argenta Allotment Permittees, with the guidance from the NRST, have developed a grazing plan for the 2017 grazing year. The purpose of this plan is to better distribute livestock off sensitive riparian areas and into the uplands. The overall philosophy for achieving the prescribed use levels outlined in the 2015 Argenta Settlement agreement is to more effectively move livestock through use areas with the use of low-stress stockmanship and the control of water and supplements. Protection of important water storage and riparian areas by fencing is allowed under the Settlement Agreement, and will be prioritized per NRST recommendations subject to NEPA and the other administrative remedies outlined within the CFRs.

In the spring of 2015, the BLM hosted a low-stress stockmanship workshop, which follows the philosophy of Bud Williams. The overall idea of this style of stockmanship is a calmer and more calculated approach to commonly-used stockmanship practices. Practitioners of this method claim substantially better livestock distribution and use it as an alternative to fencing out miles of riparian systems. For more information on this method refer to *Stockmanship: A powerful tool for grazing lands management* by Steve Cote.

In arid-land pastures, water is the most effective means of controlling livestock distribution other than fencing (Ganskopp 2001). Cattle will generally travel 1-2 miles away from water to available feed (Holechek et al. 2001). By distributing additional sources of water through a use area, a grazing operator can more efficiently distribute livestock. While the Argenta Allotment may not be lacking for water availability in many areas, the combination of low-stress stockmanship and supplemental water locations away from riparian areas may alleviate grazing pressure on riparian areas.

Best available science suggests that use of supplement in under-utilized rangelands can improve the distribution of livestock in foothills (Bailey and Welling 1999; Bailey et al. 2008). Livestock are attracted to supplements that contain limiting nutrients in their diet. By controlling the location of these supplements, a grazing plan can be further refined to control/influence/affect the distribution of cattle across the range.

There are three signatory operators within the Argenta Allotment under the 2015 Argenta Settlement Agreement - Julian Tomera Ranches, Inc.; Chiara Ranch; and Filippini Ranching, Co. In addition to these operators, C Ranches, Elko Land and Livestock Company and Rand Properties operate livestock on this allotment. These operators however are not signatory members of the Argenta Settlement Agreement. The grazing plan for the three signatory operators is under the same general philosophy. Upon turnout, ranchers will distribute the livestock widely across their use areas early on, and then implement tight control of location and duration of stay of cattle herds as the grazing season progresses.

Movement of cattle will occur under three categories. First, cattle will be moved between use areas in accordance with authorized dates and permitted numbers of livestock. This will be the general overall schedule for livestock locations and is the basis for billing by the BLM. Second, operators will disperse livestock within use areas through range riders to minimize concentrated disturbance.



An integrated component of this second part is for operators to monitor use levels as they move livestock. The third type of movement will occur when use levels are approached or exceeded. If this occurs in the uplands and/or riparian areas, operators will move their livestock to another part of the currently occupied use area where use levels are lower or to their next permitted use area.

### **Julian Tomera Ranches, Inc.:**

**Overview of issues based on 2015 and 2016 monitoring data and CMG discussions.** The Lewis, Slaven, and Trout Creek use areas did not meet the prescribed upland use levels in 2015. However, all upland areas met prescribed use levels in 2016 with the combination of improved stockmanship practices and improved growing conditions.

Only Indian Creek and Corral Canyon had riparian residual stubble height levels in 2015 that fell within a statistical uncertainty near the prescribed use level; the remainder were not successful and had met the prescribed use level. In 2016 Slaven and Ratfink DMAs met (grazing is excluded by fencing at these sites) while Indian Creek, Corral Canyon, Ferris Creek and Crippen Creek fell within a statistical uncertainty near the prescribed use level but with a mean greater than the 4 inch requirement. The Park, Trout Creek and North Fork Mill Creek still exceeded use levels.

Although significant progress was made toward meeting riparian use levels, the greater challenge continues to be control of use in riparian areas. Generally low upland utilization indicates that current stocking rate is not the problem. “Rest” for some entire use areas for riparian improvement was considered un-necessary given progress to date and the intent (goals) of the Settlement Agreement. Lack of fenced boundaries between Tomera Ranch use areas, between use areas designated for Chiara Ranch and Filippini Ranches and even between Calico Lake and Argenta allotments allows potential access by livestock by various avenues. Livestock control between allotments and between permittees must be considered as well as control within an individual permittees use areas. Although fenceless control of livestock using stockmanship principles can take several years to learn and implement effectively, progress is evident and continues to be the most likely effective management strategy in conjunction with the limited BLM and private land projects proposed.

In 2016, several riparian exclosures were installed and helped focus stockmanship efforts toward meeting use levels in many areas. The construction of additional projects around sensitive riparian areas has been delayed and need to be completed as soon as possible. If construction cannot occur prior to turn out in 2017, the NRST recommends the MLFO consider whether it is feasible to use temporary electric fence in the interim.

One of the strategies described in the 2016 stockmanship plan is to defer hot-season grazing in the Mule Canyon, Crippen Canyon, Trout Creek and North Fork Mill Creek areas. Deferment during the hot season keeps livestock out of riparian areas when they are likely the most vulnerable to overuse because of livestock water demands and the prevalence of palatable forage when much of the upland forage declines in preference. Progress was not realized in Trout and North Fork Mill Creeks because excess livestock return and drift from adjacent use areas both before (non-Tomera cattle) and after planned use. Construction of Round 2 projects, private land fencing on lower North Fork, and increased detection and removal are planned for 2017 to improve success and riparian conditions.

Although no riparian monitoring data was collected in 2015 along Rock Creek, the CMG installed a new Designated Monitoring Area (DMA) in this drainage. Woody vegetation is the key stabilizer along Rock Creek and woody browse levels were exceeded in 2016. A new water haul site on private land, temporary electric fence to provide a jump start to the most sensitive area, and opening the drift fence gate early in August to prevent concentration of livestock are proposed to facilitate stockmanship and to improve riparian conditions. Since temporary fence is a range improvement, it is subject to NEPA and the other administrative remedies outlined within the CFRs.

The near stream channel use in the Park remains problematic even though no use was recorded in the uplands. A temporary electric fence is proposed to jump start key riparian vegetation along with increased detection and removal when triggers are approached. Since temporary fence is a range improvement, it is subject to NEPA and the other administrative remedies outlined within the CFRs.

Permittees noted that water hauls, salt blocks, and low-moisture supplement tubs all proved successful in creating greater upland distribution of livestock in 2015 and 2016. Continued practice and experience with these tools, in combination with a rotational schedule, hot-season deferment, and proposed range improvements are parts of the 2017 plan to improve the condition of the riparian areas within the Tomera Ranches' use areas.

**2017 stockmanship plan for Julian Tomera Ranches.** Tomera ranches will begin grazing cattle in West Flat and East Flat and South End use areas in accordance with permitted numbers and dates. As soon as conditions permit, appropriate numbers of livestock will be moved into lower portions of Mule Canyon, North Fork Mill Creek, Trout Creek and Crippen Canyon. Remaining livestock will be gradually moved into Lewis and Maysville North along a dispersed front. Late calving stock may be trucked to Maysville South if desired to facilitate dispersal. Livestock will then be dispersed throughout the use areas as growing conditions permit to minimize concentrated disturbance in potential sage-grouse nesting and brood-rearing areas.

On or about July 1, 2017, Tomera Ranches will begin removing all livestock from Mule Canyon, North Fork Mill Creek, Trout Creek and Crippen Creek drainages to effect hot-season deferment and allow adequate regrowth of riparian vegetation. All animals will be moved to the remainder of the Lewis use area (excluding Crippen Creek drainage), Maysville North and Maysville South by July 15. Tomera and Chiara ranches will work collaboratively to remove any drift and prevent return of livestock to the subject drainages.

Periodic riding/monitoring to determine when or if within-season triggers are being approached/met will be implemented. Low-stress stockmanship principles along with low-moisture block supplement placement and water hauls will be used as necessary to move/place livestock where localized habituation jeopardizes agreed upon use levels overall. Priority efforts will be placed on The Park, Ferris and Rock Creek as well as eliminating return drift to Trout, North Fork Mill Creek and Crippen Creeks noted above.

Early season use on East Flat use area is anticipated to be slight to light under the prescribed use. As settlement agreement use levels are approached during the later grazing season, livestock will

be gradually moved back to East Flat, West Flat, Winter Range and/or other deeded pastures.

Additional adaptive management considerations may be implemented pending completion of round two range improvements on public lands, any additional improvements on private lands, and within-season monitoring. Potential boundary fencing options along the southern allotment boundary and subsequent agreements in particular may provide additional management options.

The 2017 Tomera Ranches grazing schedule (depending on growing conditions, weather and adaptive management considerations) is as follows.

1. Fence designated riparian areas as approved by BLM and develop off-site water on private land
2. Use low-moisture tubs and salt to keep cattle away from creek bottoms
3. Haul water to keep cattle away from sensitive areas
4. Use low-stress livestock handling methods

March 15 or as soon as conditions will allow:

Turn cattle to East Flat, West Flat and South End 1200 head

March 15 or as soon as conditions will allow:

Put cattle in to Mule Canyon 600 head

April 20 or as soon as conditions will allow:

Take some cattle to North Fork, Trout and Crippen Canyons

May 1 or as conditions allow:

Begin moving remaining cattle from “flats” to Lewis, Maysville N., Slaven and Maysville S. and; distribute

July 1 or as conditions allow:

Take cattle out of Mule Canyon and distribute them in Lewis, Maysville N., Maysville S. and Slaven as conditions permit

July 1-15 or as conditions permit:

Take cattle from North Fork, Trout and Crippen Canyons and distribute in Maysville S. and Indian Creek. Cattle removed from the lower end of canyons may be distributed in Lewis (except for Crippen Cr. Drainage) and Maysville N. if necessary.

Aug. 1-15 (depending on cattle congregation at the Rock Creek drift fence):

Open gate on Rock Creek drift fence and encourage all cows within Rock Creek to pass to Flats and deeded land.

Sept. 1:

Start moving remaining cows off the mountain (May S, Indian Creek, Maysville N and the reminder of Lewis) and into the Winter Range, East Flat and West Flat and other deeded pastures.

Oct. 30:

Most of the cattle are off the mountain and in the Winter Range, East and West Flat and other

deeded pastures (i.e., catch all drift by this point).

Dec. 31:

All cattle will be taken off the Winter Range, East Flat and West Flat and put into deeded pastures

**Proposed Alternative Management:**

The NRST recognizes that NEPA requirements for temporary electric fences and seasonal limitations on construction of approved jack-rail fences means fences may not be constructed in 2017 in the Rock Creek, The Park, Ferris Creek, or North Fork Mill Creek areas. If riparian fences cannot be constructed in these areas, the NRST and permittees are considering several alternatives to mitigate impacts to these riparian areas. These potential alternative actions are listed below and can be discussed and evaluated during the February CMG meeting as necessary.

**Rock Creek**

- NRST proposes a change in management of old fire/drift fence. Past management created a livestock concentration area upstream of the fence. In 2017, the gate(s) in this drift fence will be opened earlier to prevent livestock from concentrating in the meadow along Rock Creek. Changing this fence to a let-down fence to facilitate livestock movement and to prevent livestock concentration is another potential option.
- Permittees are planning to add a new water haul site on private land to facilitate greater distribution of livestock to slightly to lightly used upland sites and away from sensitive and overused riparian areas.
- Permittees will continue to practice new stockmanship practices. Like many newly implemented practices, there is a steep learning curve in the initial years of implementation. Monitoring data suggest that the second year of stockmanship efforts were better than the first year's. The Settlement Agreement runs for three years, in part so permittees can better learn some stockmanship practices and make continuous adaptations as they learn from successes and from mistakes.

**The Park**

- From the slight use measured at upland sites, it appears that The Park is used by a small group (30-60 head) of cattle, which hang on the riparian area. If this small group is observed in the Park, the 2017 plan is to relocate this group over some steep topographic divides into: (a) Slaven to use crested wheatgrass seeding and/or (b) Indian Creek use areas.
- Another possibility is to establish a rider camp at The Park so drifting livestock and riparian 'huggers' can be immediately managed.
- Another possibility is the construction of strategically located drift fences on private land at topographic pinch points to better guard against unintended drift and to better control livestock distribution.
- Permittees will continue new stockmanship practices, which we expect will improve over time.

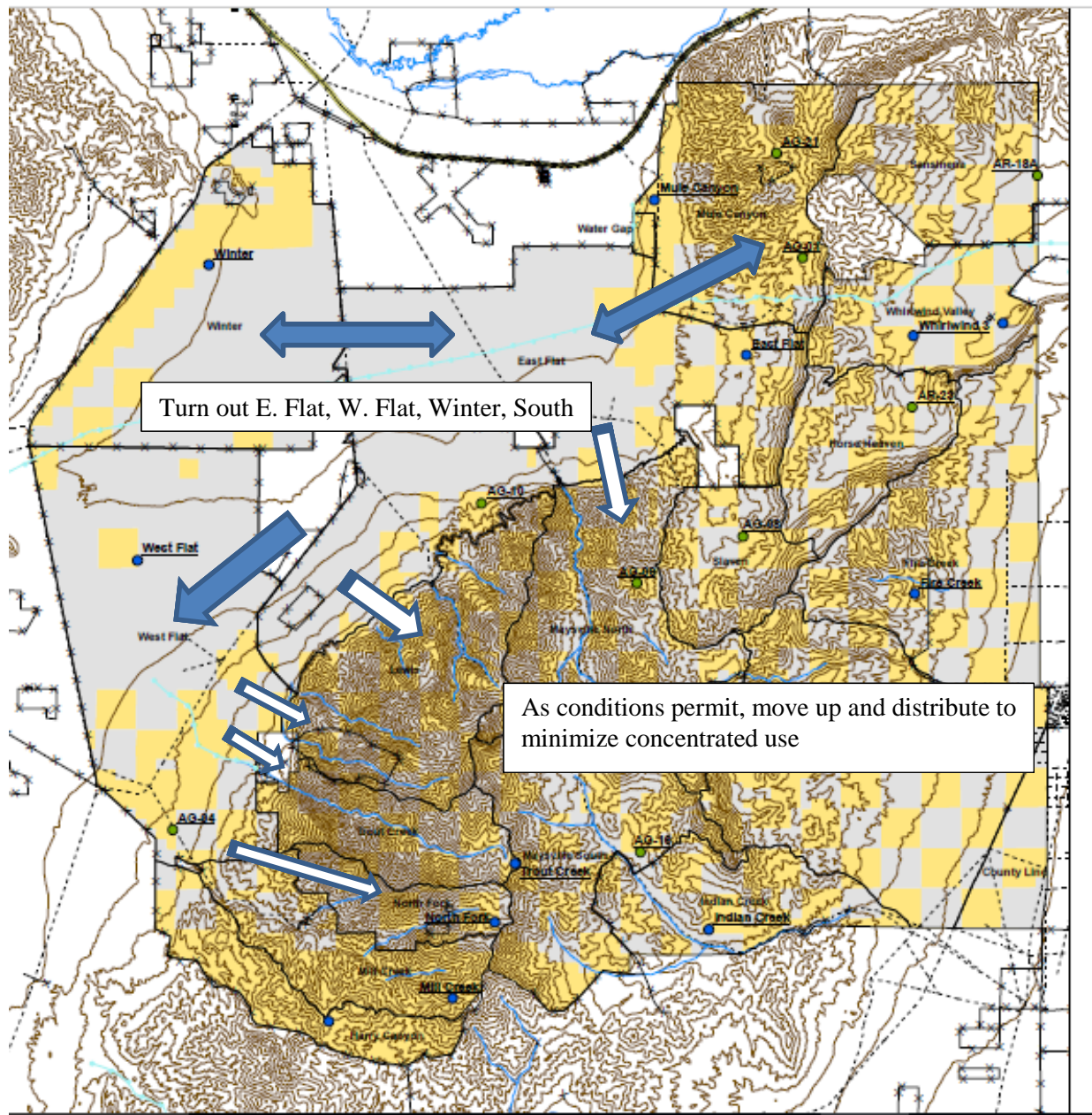
**Ferris Creek**

- Monitoring data provide evidence that stockmanship efforts in 2016 were successful and led to much better riparian conditions than in 2015. Permittees actively rode and herded drift animals from the riparian areas along Ferris Creek. The monitoring data suggest that livestock management led to considerably lighter riparian use in 2016 than in 2015. We anticipate continued success with improved stockmanship in 2017 with or without approved fencing.



#### N Fork Mill Creek

- The approved fence will protect far more than just a DMA. A three-fourths mile-long stretch of N Fork will be protected. This stretch includes an extensive network of aspen groves, springs and riparian areas. This structure should provide a great benefit to many wildlife species.
- The permittees are planning to construct a drift fences on private land to better control distribution and prevent unwanted drift of livestock. In past years, livestock apparently drift from the Mill Creek use area across private land and upstream to the North Fork use area. A drift fence on private land may serve as a major impediment to this type of drift in the future.
- Better stockmanship and early season vigilance should prevent riparian overuse as observed in 2016.
- Permittees will continue new stockmanship practices, which we expect will improve over time.



**Figure 46.** Tomera Ranches 2017 Grazing (Early)

### LEGEND

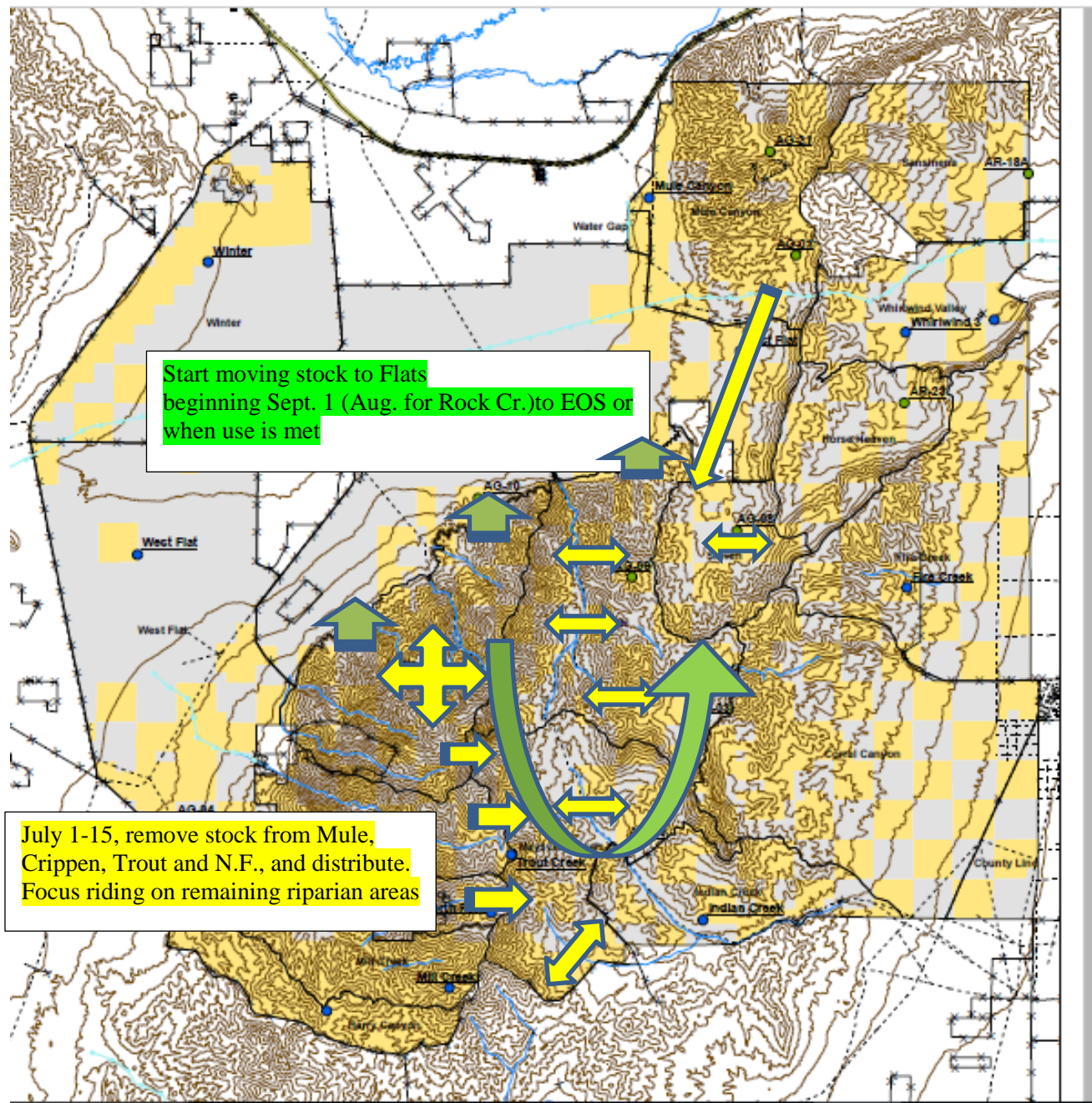


-- Move livestock into allotment according to permitted numbers and dates





-- Disperse using low stress stockmanship and as growing conditions permit minimize concentrated disturbance. Monitor use levels.





**Figure 47.** Tomera Ranches 2017 Grazing (Late)

#### LEGEND

-  -- July 1-15, remove stock from Mule, Crippen, Trout and N.F., and distribute. Focus riding on remaining riparian areas
-  -- Start moving stock to Flats beginning Sept. 1 (Open Rock Cr. Drift fence in Aug.) to EOS or when use is met

## **Chiara Ranch:**

***Overview of issues based on 2015 and 2016 monitoring data and CMG discussions.*** Upland use levels in 2016 met prescribed use levels in areas used by the Chiara ranch in North Fork Mill Creek (14%+/-6%), used in part with Tomera Ranches, and South Flat (28%+/-9%). Harry Canyon (30%+/- 14%) and Mill Creek (36%+/-9%) are statistically unknown as the confidence interval straddles the prescribed use level; use may or may not have been exceeded. Within-season monitoring will still be important so moves can be scheduled before utilization levels are exceeded. Adherence to a general rotation, control of animal distribution, and timely moves based on within-season monitoring should produce continued upland grazing success in 2017 on all use areas.

In spring 2016, a small riparian exclosure was installed at the site of the DMA in the Mill Creek Use Area. Although the DMA was not monitored in 2015, the CMG measured evident livestock use in the Mill Creek exclosure in 2016. Access to the exclosure needs to be corrected prior to the 2017 grazing season. Woody browse use was also measured in Harry Canyon which made significant improvement from 2015 (24%+/-8% in 2016 vs. 77%+/-8% in 2015). Attention to livestock distribution should be made so additional use is not transferred to other, unfenced riparian sites.

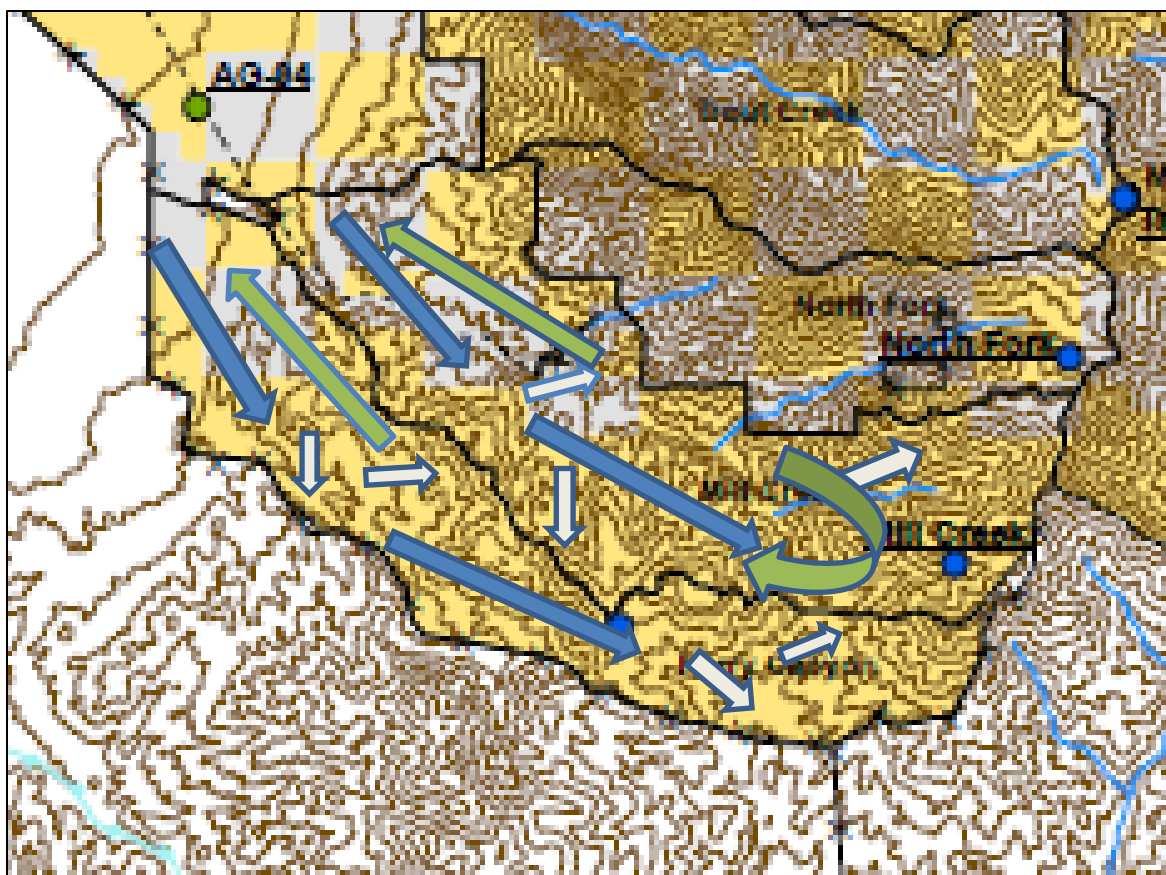
Dispersed use during the cool season, followed by active riding and distribution control in the hot season will be important in promoting improved riparian conditions.

***2017 stockmanship plan for Chiara Ranch.*** Dan and EddyAnn Filippini will graze cattle in Harry Canyon and Mill Creek use areas in accordance with permitted numbers and dates (3/1-2/28). Livestock will be dispersed throughout the use areas as growing conditions permit to minimize concentrated disturbance in potential sage-grouse nesting and brood-rearing areas.

A fence on private land is being planned to prevent drift to the extent possible from Mill Creek to North Fork Mill Creek (and beyond). The Filippinis will work collaboratively with Tomera Ranches to keep livestock separated into respective use areas as described in the Settlement Agreement. Continued focus will be on preventing and removing, as necessary, any drift into North Fork Mill Creek, Trout Creek and Crippen Creek drainages to effect hot season deferment and allow adequate regrowth of riparian vegetation.




Periodic riding and monitoring to determine when or if within season triggers are being approached/met will be implemented. Low-stress stockmanship principles will be used to move/place livestock where localized habituation jeopardizes agreed upon use levels overall. Livestock will be removed at the end of permitted use or achievement of applicable use levels.





**Figure 48.** Chiara Ranch---Stockmanship for 2017 Grazing Season

#### LEGEND

-  -- Move livestock into allotment or use area according to permitted numbers and dates
-  -- Disperse using low stress stockmanship and as growing conditions permit minimize concentrated disturbance. Monitor use levels.
-  -- Remove livestock when use levels are approached or met or end of grazing season, whichever occurs earliest

## **Fillippini Ranching:**

***Overview of issues based on 2015/2016 monitoring data and CMG discussions.*** Shawn and Angie Mariluch graze cattle in the Fire Creek, Horse Haven, Whirlwind Valley and Sansinena use areas. The only riparian area monitored in these use areas is the Fire Creek DMA. Monitoring on this DMA indicates recent use has met the prescribed levels in both years. The riparian community appears to be in generally good condition; however, a series of small knickpoints should be monitored and possibly addressed in the agreement with Klondex Mining.

The upland annual-use monitoring in 2015 indicated that utilization levels met the prescribed level at 2 monitoring sites, (Fire Creek (0%) and Whirlwind 1 (26% +/- 13%). Horse Haven (48% +/- 15%) use levels fell within a statistical uncertainty near the prescribed use level. Two other monitoring sites, Sansinena (56% +/- 8%), and Whirlwind 3 (51% +/- 6%), did not meet the prescribed levels. In 2016, all monitoring sites easily met the prescribed utilization levels (Fire Creek 12% +/- 7%, Whirlwind 4% +/- 3%, Horse Haven 12% +/- 12%, Sansinena 11% +/- 7%.)

Deferment is planned in Sansinena again until seed-ripe, which should promote increased vigor prior to growing season use in future rotations.

Adherence to a general rotation, control of animal distribution with riders and supplements, and timely moves based on within-season monitoring should produce grazing success in 2017 on all use areas. Development of additional water sites (temporary water hauls in the immediate future with permanent water sites on private land possible later) should promote greater dispersal of livestock away from the Horse Haven/Whirlwind well.

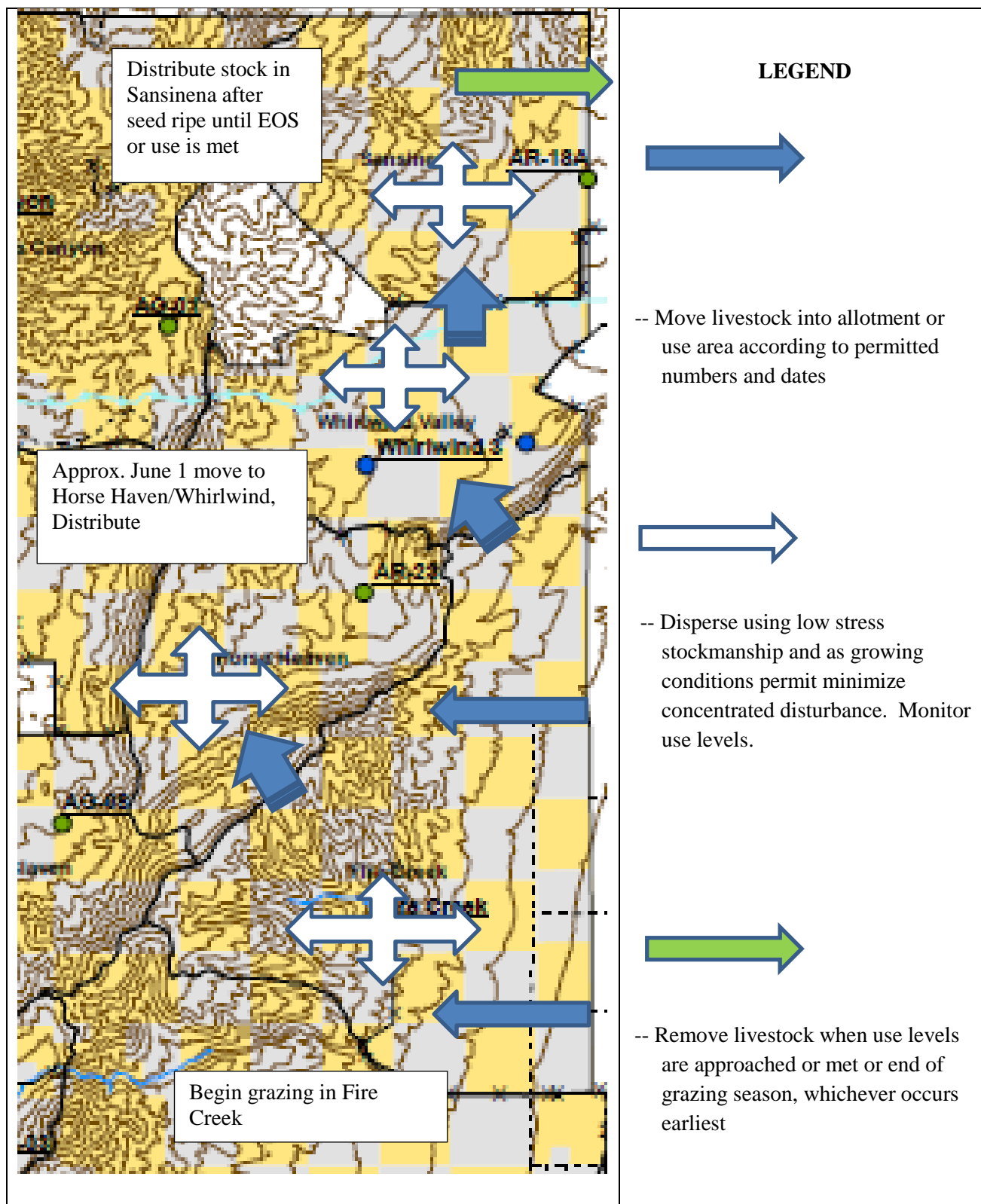
***2017 stockmanship plan for Filippini Ranching, Co.*** Mariluches will begin grazing cattle in Fire Creek use area in accordance with permitted numbers and dates. Livestock will be dispersed within the use area using low-stress stockmanship techniques and additional water haul sites if necessary. Livestock will be moved from Fire Creek to Horse Haven and Whirlwind Valley use areas on or about June 1 or when designated use levels are met in Fire Creek, whichever occurs first to defer riparian use through the remainder of the “hot” growing season. Livestock will be dispersed throughout Horse Haven and Whirlwind using low-stress stockmanship techniques in addition to water haul sites and low-moisture block supplements to minimize trailing effects to and from existing permanent waters.

Sansinena use area will be deferred during the upland growing season until or on about August 15. Livestock will be moved to Sansinena and dispersed from localized areas in Horse Haven and Whirlwind as designated use levels are approached and/or to reduce trailing until:

- 1) Use in Horse Haven and Whirlwind dictates all livestock be removed to Sansinena or
- 2) Designated use levels in Sansinena are approached or exceeded or
- 3) End of grazing season dictates removal.

Periodic riding/monitoring to determine when or if within season triggers are being approached/met will be implemented.

Additional adaptive management considerations may be appropriate pending disposition of potential range improvements on both public and private lands.



**Figure 49.** Filippini Ranching---Stockmanship for 2017 grazing season

## REFERENCES

- Burton, T.A., Smith, S.J., and Cowley, E.R., 2011. Riparian area management: Multiple indicator monitoring (MIM) of stream channels and streamside vegetation. U.S. Department of the Interior, Bureau of Land Management. Technical Reference 1737-23, Denver, CO.
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No.	Commenter	Comment	BLM Response
1	Wildlands Defence January 25, 2017	WLD is concerned that BLM is only posting Argenta End of Season Monitoring reports on the Internet for a mere 15 days. These should stay up permanently. Your letter is dated Jan. 13. It typically takes several days for mail to get delivered here.	<p>Per the settlement agreement, there is no comment period. There is a requirement for public outreach which could have included 2 hour meeting with comments provided on site. A 15 day comment period was provided to both allow the public to review and provide comments on management on the Argenta Allotment. This gives the public more time to provide thoughtful comments and allow the Argenta CMG to make any appropriate changes.</p> <p>Your comment is noted that the 15 day period was insufficient.</p>
2	Wildlands Defence January 25, 2017	I also again raise the issue that BLM should post the Assessment documents gathered to date on line permanently for all the public to see.	<p>The 2016 End-of-Season report was posted to the BLM Battle Mountain District Argenta Webpage on January 13, 2017. It will remain there indefinitely along with all other materials related to the Argenta Settlement Agreement.</p> <p>This page can be found at (<a href="https://blm-prod.opengov.ibmcloud.com/node/8651">https://blm-prod.opengov.ibmcloud.com/node/8651</a>)</p>
3	Wildlands Defence January 25, 2017	In both these instances, the public is at a disadvantage if they are not part of the elite closed door Argenta group, or permittees who have been provided privileged access to data gathering and monitoring sessions.	The purpose of this report is to inform the public of the grazing management on the Argenta Allotment and allow a forum to solicit public comments.
4	Wildlands Defence January 25, 2017	Further, behind closed doors, the NRST and cow consultants have rigged the monitoring sites, methods and analyses related to the End of Season Report. We are very concerned that this too may be take place with the assessment.	Establishment and validation of monitoring sites was conducted in a transparent and inclusive process which was used by the CMG (with all CMG members invited to participate) to select monitoring sites and monitoring methods. There is no evidence of a rigged process.
5	Wildlands Defence January 25, 2017	We again request that NO information collected by the NRST and cow consultants be given any credible weight in the assessment process.	The CMG, which is comprised of the BLM, NRST, Western Watersheds Project and the Grazing Permittees, collected this data monitoring data with established BLM monitoring methods.
6	Western Watershed Project Ken Cole January 26, 2017	<p>The stockmanship plans inadequately address the failure to meet riparian standards that were agreed to over the last two years. Rather than consider rest in the use areas, as required by the settlement agreement, the stockmanship plans rely primarily on more unbuilt fencing that may never be approved. This is simply unacceptable and some of the worst land management I have witnessed in my time dealing with these issues. This is the language from the settlement agreement:</p> <p><i>If end of season use levels are exceeded two years in a row, the NRST and BLM will consider whether the Use Area needs to be rested in the following grazing year.</i></p> <p>Note that it says BLM will consider whether the <i>Use Areas</i> need to be rested, not whether the monitoring sites documenting the overuse need to be fenced.</p>	<p>The matter of rest and closure of use areas has been raised and addressed before, including by John Ruhs, Nevada State Director for BLM. Mr. Ruhs and other CMG members have pointed out that rest can come in many forms. Our interpretation of Mr. Cole's comment is that he associates rest with season-long closure. Rest can come in the form of prescribed rest periods related to a grazing plan with period of deferred use. This is what was proposed in 2016 and will be proposed in the 2017 stockmanship plans.</p> <p>Also considered during this process is where there is success due to increased stockmanship based on monitoring information available. Due to successes in increased stockmanship, there is opportunity to increase focus on areas where more improvement is required and provide deferral where appropriate.</p> <p>Another factor in evaluating closure over management of use areas is the end-of-season monitoring data from 2015 and 2016. These data show that in 2016 all upland sites received slight to light use and overall use was considerably lighter than in 2015. In part, improved growing conditions contributed to this success, but so too did better implementation of the stockmanship plan. The 2016 monitoring data show there was no evidence that utilization exceeded stipulated use levels at any upland monitoring site. Consequently, these data indicate that stockmanship efforts have been successful and that the management issues are not related to stocking rates, but to distribution problems related to overuse of several riparian areas.</p>

No.	Commenter	Comment	BLM Response
7	Western Watershed Project Ken Cole January 26, 2017	Simply put, the NRST and State BLM offices have completely undermined the MLFO and are not holding these permits accountable for the damage that they continue to inflict on public lands. It is clear that the NRST will never recommend rest of use areas that aren't meeting riparian standards, instead, they only offer more fencing to ensure that the status quo grazing continues. These lands need decisive action to address grazing, not more fencing.	<p>Fencing is not a panacea, but it is a proven management tool that can improve the management and condition of rangeland resources for the benefit of livestock, wildlife, and recreationalists. The BLM has completed NEPA and issued a decision on Round 2 fencing projects, which propose fencing to protect riparian areas along Ferris Creek and N Fork Mill Creek. The NRST also recommended temporary electric fence for two other riparian areas (Rock Creek and the Park) that have historically been overused. As observed in Mill Creek in 2016, even with the construction of enclosure fences, livestock may still access some fenced areas. This only emphasizes the need for continuous vigilance and solid stockmanship practices. Fences do tend to reduce the number of sites that must be continuously monitored and allows riders to focus their limited time on the most challenging management areas.</p> <p>Selective fencing of riparian areas does have demonstrable benefits to many wildlife species too. Clean water sources are a benefit to many wildlife species, as is the forage that is generally inaccessible to livestock. Season-long plant growth also provides high quality nesting, hiding, and thermal cover for wildlife year round.</p>
8	Western Watershed Project Ken Cole January 26, 2017	Rest is appropriate and needed in the use areas where riparian standards have not been met because of the impact to the wildlife that depend on the riparian areas that have been degraded. These riparian areas are critical for sage grouse, nesting songbirds, mule deer, and a whole host of species. Fencing is not a solution without negative impacts to wildlife, especially when the fencing is proposed only around areas where monitoring is being conducted. This only serves to mask the impacts to areas outside of the fenced areas and portraus a false impression to the public and does nothing to affect the underlying issues of abusive livestock grazing.	See Responses to Comments 6 & 7
9	Western Watershed Project Ken Cole January 26, 2017	As we have repeated over and over, analysis of fencing should only be in relation to a Rangeland Health Determination and during the permit renewal process. The fencing has no independent utility if grazing isn't to continue on the allotment. This cannot be a pre-ordained outcome under NEPA.	The project NEPA is done to look at the utility of projects in the current conditions, which includes grazing. We understand that WWP feels strongly that project work should only be completed during the permit renewal process, post RHE. This is not a legal or regulatory requirement.
10	Western Watershed Project Ken Cole January 26, 2017	We have also noted that the fencing approved in the first round wasn't even effective in keeping livestock out of the exclosed riparain areas. The report notes that the new Mill Creek enclosure had be trespassed in 2016.	Comment Noted, The MLFO will work with the permittee to fix the enclosure to keep future livestock use out.
11	Western Watershed Project Ken Cole January 26, 2017	The stockmanship plans must address the failures to meet riparian standards without requiring fencing that has not even been analyzed or approved. Analysis of new fencing will also belay the permit renewal process that is underway. It seems highly likely that requesting more fencing will delay that process and is possibly even the intent. The CMG was even informed of this likelihood by the MLFO but the stockmanship plans continue to rely on the fencing.	<p>The NRST recognizes that NEPA requirements for temporary electric fences and seasonal limitations on construction of approved jack-rail fences means fences may not be constructed in 2017 in the Rock Creek, The Park, Ferris Creek, or North Fork Mill Creek areas. If riparian fences cannot be constructed in these areas, the NRST and permittees are considering several alternatives to mitigate impacts to these riparian areas. These potential alternative actions are listed below and can be discussed and evaluated during the February CMG meeting as necessary.</p> <p>Rock Creek</p> <p>-NRST proposes a change in management of old fire/drift fence. Past management created a livestock concentration area upstream of the fence. In 2017, the gate(s) in this drift fence will be opened earlier to prevent livestock from concentrating in the meadow along Rock Creek. Changing this fence to a let-down fence to facilitate livestock movement and to prevent livestock concentration is another potential option.</p> <p>-Permittees are planning to add a new water haul site on private land to facilitate greater distribution of livestock to slightly to lightly used upland sites and away from sensitive and overused riparian areas.</p>

No.	Commenter	Comment	BLM Response
11			-Permittees will continue to practice new stockmanship practices. Like many newly implemented practices, there is a steep learning curve in the initial years of implementation. Monitoring data suggest that the second year of stockmanship efforts were better than the first year's. the Settlement Agreement runs for three years, in part so Permittees can better learn some stockmanship practices and make continuous adaptations as they learn From successes and From mistakes.
11			<p>The Park</p> <p>-From the slight use measured at upland sites, it appears that The Park is used by a small group (30-60 head) of cattle, which hang on the riparian area. If this small group is observed in the Park, the 2017 plan is to relocate this group over some steep topographic divides into: (a) Slaven to use crested wheatgrass seeding and/or (b) Indian Creek use areas.</p> <p>-From the slight use measured at upland sites, it appears that The Park is used by a small group (30-60 head) of cattle, which hang on the riparian area. If this small group is observed in the Park, the 2017 plan is to relocate this group over some steep topographic divides into: (a) Slaven to use crested wheatgrass seeding and/or (b) Indian Creek use areas.</p> <p>-Another possibility is to establish a rider camp at The Park so drifting livestock and riparian 'huggers' can be immediately managed.</p> <p>-Permittees will continue new stockmanship practices, which we expect will improve over time. It is recognized that livestock drift is problematic and is a focus on where to improvement can occur.</p>
11			<p>Ferris Creek</p> <p>-Monitoring data provide evidence that stockmanship efforts in 2016 were successful and led to much better riparian conditions than in 2015. Permittees actively rode and herded drift animals from the riparian areas along Ferris Creek. The monitoring data suggest that livestock management led to considerably lighter riparian use in 2016 than in 2015. We anticipate continued success with improved stockmanship in 2017 with or without approved fencing.</p> <p>N. Fork Mill Creek</p> <p>-The approved fence will protect far more than just a DMA. A three-fourths mile-long stretch of N Fork will be protected. This stretch includes an extensive network of aspen groves, springs and riparian areas. This structure should provide a great benefit to many wildlife species.</p> <p>-The permittees are planning to construct a drift fences on private land to better control distribution and prevent unwanted drift of livestock. In past years, livestock apparently drift.</p>
12	Western Watershed Project Ken Cole January 26, 2017	Additionally, the ARMPA places restrictions on the timing of fence construction which make it unlikely that any fencing will be built legally before next fall. The length of time to analyze and approve any new fencing places completion will after the fencing is needed.	See Responses to Comment 11
13	Western Watershed Project Ken Cole January 26, 2017	The NRST failed to document conditions on Rock Creek in 2015 despite clear ongoing degradation, and 2016 monitoring showing that grazing there was once again an abysmal failure. What is the solution to deal with this livestock problem that has been termed as a "riparian" problem? More fencing. This is an utter lack of imagination and accountability at the expense of the public and public lands. It's gross mismanagement of public resources.	See Response to Comment 11
14	Western Watershed Project Ken Cole January 26, 2017	Fencing in Rock Creek will also have an additional impact on recreation in the areas and electric fencing will have an impact on deer that are accustomed to using the area.	Comment Noted

No.	Commenter	Comment	BLM Response
15	Western Watershed Project Ken Cole January 26, 2017	BLM regulations require NEPA analysis for any new projects in conjunction with previous projects, including the proposed boundary fence and Fire Creek enclosure which, even though they may be built partially on private lands, have cumulative effects that must be analyzed. The NEPA document must also include a site-specific analysis. Additionally, the BLM must issue an appealable decision for any fencing, even if it's a DNA.	Comment Noted; The Argenta Round I and Round II Projects were analyzed according to the process you described. The MLFO will be analyzing the South Boundary Fence under an EA which will be followed by an appealable final decision. There will be a CX will be completed for the electric fences in the Park and Rock Creek to comply with NEPA and followed by an appealable final decision.
16	Western Watershed Project Ken Cole January 26, 2017	Any NEPA analysis must document the rationale for why more fencing is a viable option when BLM found identical proposals were incapable of solving the grazing problems on the allotment only two years ago. What has changed? At that time BLM said it wouldn't be feasible and refused to consider new fencing until a rangeland health analysis and NEPA process were complete.	The BLM conclusion two years ago regarding suitability of fencing was in relation to drought management. The intent here is to address rangeland management of select riparian areas with some infrastructure and stockmanship. Fences don't improve range conditions that are brought about by drought. Fencing can improve range conditions where distribution, timing, intensity of grazing must be managed.
17	Western Watershed Project Ken Cole January 26, 2017	Documents responsive to a Freedom of Information Act request WWP submitted to the NRST on October 23, 2015 indicated that the NRST alone has spent \$268,966.78 on the Argenta dispute. This accounted for only the months March through November of 2015. We have no idea how much the BLM has dedicated to this dispute and building new range projects or how much more the NRST has spent on this dispute since October of last year. We are also aware that the permittees have spent a large amount on hiring consultants and that they accepted large payments from the federal drought disaster relief program. WWP has also dedicated significant staff time and resources to engage in this process.	Comment Noted; It should be noted that the materials for enclosures are funded mostly by the use of 8100 funds that are directly created through a portion of the grazing fees paid by the permittees. Therefore it is the fee-paying permittees that are funding a large part the projects.  The analysis and administrative tasks for these projects are funded from outside the 8100 funds.
18	Western Watershed Project Ken Cole January 26, 2017	We would ask that you consider the public interest in making further decisions on the Argenta allotment. Rather than building yet another bunch of fences on public lands, the BLM and NRST should commit due diligence and actually consider resting the use areas that did not meet the meager utilization standards for the second year in a row. The status quo cannot continue on the Argenta allotment. The BLM should only commit to analyzing range projects once the Rangeland Health Assessments have been completed, not before.	See Response to Comment 11
19	Wildlands Defence January 27, 2017	Why is the Argenta EOY report with the minimal 15 day availability period NOT on the BM webpage?	The web address where this report was located was mailed to the interested public on January 13, 2017.
20	Intermountain Range Consultants Bob Schweigert January 28, 2017	This week, in reading through and attempting to understand the Report as drafted, I found it extremely convoluted, and we need a more internally consistently worded document.	Comment Noted
21	Intermountain Range Consultants Bob Schweigert January 28, 2017	The general public, when reading the tables, is going to have trouble digesting the fact that "Not Met" is a good thing, and we should probably stick to "successful", "inconclusive" and "unsuccessful". There are also other places where "success" is described as "not meeting" the utilization levels established by the SA. These places should be reworded to something like "not exceeding" the levels.	Comment Noted; The use of Confidence Intervals, and the interpretation thereof, will be in accordance with the signed dispute resolution regarding this topic.  The language for the final report was changed to "Thresholds Met" to indicate success, "Statistically uncertain and more likely to have met" and "Statistically uncertain and more likely to not have Met" to represent statistically uncertain results as appropriate to where the mean value occurs relative to the threshold. "Thresholds not Met" to indicate not successful.
22	Intermountain Range Consultants Bob Schweigert January 28, 2017	We also need to be careful about using Elzinga's "more likely than not to have met" and "more likely than not to have not met", (if that is a direct quote of Elzinga) because we are placing a "probability" on a statistically inconclusive result, which we cannot rationally do. If we want to paraphrase Elzinga, in the context of success and non success, we can say things like "threshold exceeded", aka unsuccessful, "threshold met" aka statistically inconclusive, and "threshold not exceeded" aka unsuccessful, but I would stay away from the "more likely than not" business. In addition, double and triple negatives are difficult to digest.  Correction - "threshold not exceeded" equates to "successful".	This language is in accordance with the dispute resolution on Upland Utilization Confidence Intervals.



No.	Commenter	Comment	BLM Response
23	Intermountain Range Consultants Bob Schweigert January 30, 2017	THIS IS THE ONLY DOCUMENT I HAVE EVER READ WHERE "MET" MEANT "EXCEEDED", WHICH MEANS "DID NOT SUCCEED".	See Response to Comment 21
24	Intermountain Range Consultants Bob Schweigert January 30, 2017	OVERALL, WE NEED TO GET RID OF THE NOTION OF "WHICH SIDE" ("MORE LIKELY THAN NOT") OF THE THRESHOLD THE AVERAGE LANDED ON. ANY TIME THE EMPIRICAL AVERAGE IS BEYOND THE THRESHOLD (I.E. GREATER THAN THE UTILIZATION THRESHOLD AND LESS THAN THE 4 INCH STUBBLE HEIGHT) AND OUTSIDE THE CI OF THE EMPIRICAL AVERAGE, WE SHOULD USE THE PHRASE "EXCEEDED THE THRESHOLD"; ANY TIME THE EMPIRICAL AVERAGE IS LESS THAN THE THRESHOLD (I.E. IS LESS THAN THE UTILIZATION LEVEL AND GREATER THAN 4 INCHES) AND OUTSIDE THE CI, WE SHOULD USE THE PHRASE "DID NOT REACH OR EXCEED THE THRESHOLD" AND; ANY TIME THE THRESHOLD IS WITHIN THE CI OF THE EMPIRICAL AVERAGE, WE SHOULD USE THE PHRASE "REACHED THE THRESHOLD" (OR "REACHED BUT DID NOT EXCEED THE THRESHOLD");. I note that Elzinga, if that is who we are relying on, did not report a "fifth" possibility, i.e. that the empirical data is exactly the threshold. What do we say then? The threshold was more likely than not to have been exactly met? No, because we still have the CI to deal with. Any empirical data whose CI overlaps the threshold should simply be deemed to have "reached but did not exceed the threshold".	This language is in accordance with the dispute resolution on Upland Utilization Confidence Intervals.
25	Intermountain Range Consultants Bob Schweigert January 30, 2017	OVERALL, DISCUSSION OF STREAMBANK ALTERATION SHOULD BE REMOVED, BECAUSE IT IS NOT REQUIRED MONITORING UNDER THE SETTLEMENT AGREEMENT. THE ONLY EXCEPTION TO THIS MAY BE AS AN ASIDE IN THE INTRODUCTION THAT IT WAS READ IN ORDER TO CORRELATE INITIAL (2016) ALTERATION AND STREAMBANK STABILITY TO LONGER FUTURE TREND DETERMINATIONS IN STREAMBANK STABILITY.	Data collected on streambank alteration is not used in determining success/failure by livestock operators within the scope of the settlement agreement or this document. This document serves several roles, one being a end-of-season, short-term indicator monitoring report. Streambank alteration was collected during the monitoring effort alongside other indicators and the MLFO feels it is appropriate to include this data within the monitoring report.  Furthermore, in an attempt to be transparent, all collected data are being reported. If these data would have been excluded, it is likely that other parties would have requested their inclusion as occurred last year.
26	Intermountain Range Consultants Bob Schweigert January 30, 2017	Reminder: Narratives talking about numbers should spell them out. This is a matter of professional style, and is important. This applies throughout the document. E.g. page 50, last paragraph "Eleven of the 13 areas..." should read "Eleven of the thirteen areas...". Or even "Eleven (11) of the thirteen (13) areas...".	Comment Noted
27	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 5: Paragraph 2. The phrase "provided for" should read "required"	"Provided for" has been changed to "specified by"
28	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 5. Paragraph 4: The phrase "did not meet thresholds" should read "did not exceed thresholds", and the phrase "did meet thresholds" read "did exceed thresholds".	Report updated to "the final determination of success will be calculated only on use areas that either clearly did meet thresholds (successful) or clearly did not meet thresholds (not successful)."
29	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 5. Bottom paragraph. The enclosures enclose all of the length of the DMAs in Ratfink and Slaven.	Comment Noted. The Final EOS report reflects that the entire DMAs at Ratfink and Slaven are enclosed.
30	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 7: Utilization classes (slight, light, etc.) are used in this report. Their ranges should be identified at this page.	An explanation has been added to Page 14.

No.	Commenter	Comment	BLM Response
31	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 10. The primary resource values should include forage for livestock and wildlife. See the Taylor Grazing Act.	Comment noted. This statement has been updated to "The primary resource values are greater sage-grouse priority habitat, emergency stabilization and rehabilitation post-fire seeding treatments, riparian and wetland habitat, forage for livestock and wildlife and isolated communities of aspen stands."
32	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 12, Methods, line 8: The phrase "provided for" should read "required".	"Provided for" has been changed to "specified by"
33	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 13: 10 samples is not usually statistically sufficient. While that may be all that were there, it is not satisfactory, and these should be reported as "insufficient sample size". One of the criteria of a "key forage species" is that it is relatively abundant on the site. This page should note that where there were insufficient sample sizes, these species were not included in the average.	To be consistent with the 2015 EOS monitoring report and in accordance with previous agreements within the CMG, the adequate sample size will remain at 10
34	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 14: Use Area Results, line 3: "not meeting" should be changed to "not reaching or exceeding".	See Response to Comment 21
35	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 14: "Not Met" has a negative connotation in the public's reading. Table 1 needs to be changed to the similar to the Elzinga box language for clarity, e.g. "not met" should read "threshold not reached or exceeded"; if the empirical data CI overlaps the threshold, then the wording should be "threshold reached but not exceeded" and if the levels were clearly exceeded, then "threshold exceeded").	See Response to Comment 21
36	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 15: Same – convoluted.	See Response to Comment 21
37	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 16: Same – convoluted.	See Response to Comment 21
38	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 16: "Success is unclear" is unclear, and is different than even the "more likely.....and may have been successful".	Comment Noted; This language will be clarified.
39	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 16: second paragraph, bottom two lines "3 of the 12.. were not successful...met monitoring thresholds." The thresholds have to be exceeded, not just met, in order to be not successful.	See Response to Comment 21 & 28
40	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 16: third paragraph, second line. Same thing – meeting the threshold is inconclusive, exceeding the threshold is not successful.	See Response to Comment 21 & 28
41	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 16: Table 3. Convoluted and confusing. Get rid of the "more likely than". If we want to paraphrase, use "not reached or exceeded", "reached but not exceeded", and "exceeded".	See Response to Comment 21
42	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 17: First paragraph. Same error; "met" is not unsuccessful. An exceedance is unsuccessful.	See Response to Comment 21
43	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 20: Table 5. Convoluted. Use "not reached or exceeded", "reached but not exceeded", "exceeded", as appropriate.	See Response to Comment 21
44	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 21: First full paragraph, and Figure 5. AG-03 and AG-09 are not within Mule Canyon Use Area. AG-01, AG-21, and "Mule Canyon-New" are the sites in Mule Canyon Use Area. This will also change the appearance and any conclusion that AG-01 "reached the threshold"; it was well below the threshold.	Comment Noted, this error was confined to this page and did not influence the overall reporting outside figure 5 and the first paragraph.

No.	Commenter	Comment	BLM Response
45	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 21: second to last paragraph. "Not meeting" should read "not exceeding". Change "more likely..." to "met", or "met within statistical probability" or "met within confidence levels" or "were statistically inconclusive".	See Response to Comment 21
46	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 21: "not meeting" needs to be changed to "not exceeding".	See Response to Comment 21
47	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 22: Figure 5. AG-01, AG-21, and "Mule Canyon-New" are the sites in Mule Canyon Use Area with 50% utilization thresholds. AG-03 and AG-09 should have the green bar at the same level as others. Also, herbaceous data was collected there in 2015. (Jamie??). Also, AG-09 was measured in 2015. Also should get rid of "other empty values" phrase and specify the site numbers (e.g. "AG-02, Fire Creek, Harry Canyon, AG-21, and Whirlwind 3").....were measured at 0% utilization."	The comment relative to the placement of the green line was noted and the graph has been corrected.  Your comment is noted relative to the "empty Values", "Insufficient Samples" will be adjusted as appropriate.  Your comment relating to specifying which sites were not monitored/had 0% utilization is noted and has been clarified.
48	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 22: 2nd to bottom paragraph: "demonstrable improvement" should be changed to "demonstrable lower utilization levels".	This language is from the settlement agreement which establishes a goal of 'demonstrable improvement' from year to year. Demonstrable improvement can be shown statistically when there is statistically significant differences in measurements at the same site. The MLFO sees that this can be confusing to the general public and will clarify this statement to "statistically significant decrease"
49	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 22: bottom paragraph. Get rid of "In contrast". "no measured utilization" has different connotation than 0% utilization, and the use of the phrase makes it look like no data was collected. There was measured utilization, because it was measured at 0%. "Meet" should be "reach or exceed". Get rid of "More likely than not" language.	See Response to Comment 21  Comment noted, your comment on "no observable utilization" has been adjusted to state "0% utilization observed" throughout the document.
50	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 22: Assuming no other corrections to the reported data (Jamie?) the 2015/2016 comparison should also have language something like, "In 2015, five (AG-09?) of the twenty (25%) upland herbaceous monitoring sites clearly exceeded the utilization threshold (i.e. the averages were well above the thresholds and CIs did not overlap the threshold); six of the twenty sites (30%) met the threshold (i.e. are statistically indistinguishable from the thresholds, because CIs overlap the threshold), and; nine of the twenty sites (45%) were well below the threshold (i.e. the averages were well below the thresholds and CIs did not overlap the threshold). In 2016, none (0%) of twenty sites clearly exceeded the thresholds, two of twenty (10%) met the threshold, and eighteen of twenty (80%) were well below the threshold."  And:	The Settlement Agreement requires that success and failure will be defined on the Use Area Level. The percentages leads the reader to the conclusion that there is a grade being assigned. This section discusses results on a monitoring site level. Additionally, in early drafts commenters often mentioned that having percentages representing multiple layers of statistics was confusing to the average reader. Therefore percentages were not assigned to data in this section.  See Response to Comment 21
50		Comment 50 Continued:  Assuming no other corrections to the reported data (Jamie?) the 2015/2016 comparison should also have language something like, "In 2015, none (0%) of the seven woody browse monitoring sites clearly exceeded the utilization threshold (i.e. the averages were well above the thresholds and CIs did not overlap the threshold); two of the seven (29%) met the threshold (i.e. are statistically indistinguishable from the thresholds, because CIs overlap the threshold), and; five of the seven sites (71%) were well below the threshold (i.e. the averages were well below the thresholds and CIs did not overlap the threshold). In 2016, none (0%) of the seven sites clearly exceeded the thresholds, none of the seven sites (0%) met the threshold, and seven of the seven sites (100%) were well below the threshold."	
51	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 23: "not met" should read "not reached or exceeded".	See Response to Comment 21

No.	Commenter	Comment	BLM Response
52	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 24: get rid of the “more likely than not” business. “Not met” should read “not reached or exceeded.” “Significant improvement” should read “significantly lower utilization”	See Response to Comment 21
53	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 25: “there was no observable utilization” has different connotation than 0% utilization, and the use of the phrase makes it look like no data was collected. There was observable utilization, because it was observed and measured, at 0%. “Not met” should read “not reached or exceeded”. “slight to light” should be changed to “slight”, because that was the average utilization (12% ± 7%).	Comment noted, your comment on "no observable utilization" has been adusted to state "0% utilization observed" throughout the document.  Your comment to change "slight to light" to "Slight" has been made"
54	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 26: “no observable utilization was measured” has different connotation than 0% utilization, and the use of the phrase makes it look like no data was collected. There was observable utilization, because it was observed and measured, at 0%. “Not met” should read “not reached or exceeded”. Get rid of the “more likely” business.	See Response to Comment 21  Comment noted, your comment on "no observable utilization" has been adusted to state "0% utilization observed" throughout the document.
55	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 27: get rid of the “more likely than not” business. “Not met” should read “not reached or exceeded.” “Significant improvement” should read “significantly lower utilization”	See Response to Comments 21 & 48
56	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 28: “not met” should read “not reached or exceeded”.	See Response to Comment 21
57	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 29: “end of 2015” should read “end of 2015 and end of 2016”; “met” should read “reached”; “not met” should read “not reached or exceeded”; “Significant improvement” should read “significantly lower utilization”.	See Response to Comment 21
58	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 30: Delete “is”.	Change accepted
59	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 31: “not met” should read “not reached or exceeded”. “there was no observable utilization” should read “utilization was 0%”.	See Response to Comment 21  Comment noted, your comment on "no observable utilization" will be adusted to state "0% utilization observed" throughout the document.
60	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 32: get rid of more likely language. “not met” should read “not reached or exceeded”. “Significant improvement” should read “significantly lower utilization”.	See Response to Comments 21 & 48
61	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 33: get rid of more likely language . “not met” should read “exceeded”.	See Response to Comment 21
62	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 35: “not met” should read “exceeded”.	See Response to Comment 21
63	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 36: “not met” should read “exceeded”.	See Response to Comment 21
64	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 37: get rid of more likely language. “not met” should read “not reached or exceeded”. “Significant improvement” should read “significantly lower utilization”.	See Response to Comments 21 & 48
65	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 38: get rid of more likely language. “not met” should read “not reached or exceeded”. “Significant improvement” should read “significantly lower utilization”.	See Response to Comments 21 & 48
66	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 39: “was met” should read “was exceeded”. “not met” should read “not reached or exceeded”. get rid of more likely language. “Significant improvement” should read “significantly lower utilization”	See Response to Comments 21 & 48



No.	Commenter	Comment	BLM Response
67	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 40: “was met” should read “was exceeded”. “not met” should read “not reached or exceeded”. get rid of more likely language. “Significant improvement” should read “significantly lower utilization”	See Response to Comments 21 & 48
68	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 41: “was met” should read “was exceeded”. “not met” should read “not reached or exceeded”. get rid of more likely language.	See Response to Comment 21
69	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 42: “was met” should read “was exceeded”. “not met” should read “not reached or exceeded”. get rid of more likely language. “Significant improvement” should read “significantly lower utilization”.	See Response to Comments 21 & 48
70	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 43: “not met” should read “not reached or exceeded”.	See Response to Comment 21
71	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 44: “not met” should read “not reached or exceeded”.	See Response to Comment 21
72	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 45: “was met” should read “was exceeded”. “not met” should read “not reached or exceeded”. “there was no observable utilization” should read “utilization was 0%”. “Significant improvement” should read “significantly lower utilization”.	See Response to Comment 21  Comment noted, your comment on “no observable utilization” will be adusted to state “0% utilization observed” throughout the document
73	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 46: “not met” should read “not reached or exceeded”.	See Response to Comment 21
74	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 48: “Table.” Should read “Table 43.”	Comment Noted; Change accepted
75	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 50: Table 45. Same issues as other tables. Get rid of more likely language. These are “reached”; “not met” should read “not reached or exceeded”. “Met” should read “exceeded”.	See Response to Comment 21
76	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 51: “Not meeting” should read “not exceeding”. Get rid of more likely language. “Met” should read “exceeded”. Delete “of”.	See Response to Comment 21; Comment Noted, “Of” deleted
77	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 52: “meet” should read “exceed”. Get rid of more likely language.	See Response to Comment 21
78	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 53: Get rid of more likely language. This site “reached but did not exceed” the threshold in 2015, and “reached but did not exceed” the threshold in 2016. Delete discussion of streambank alteration; it is not a part of the required annual monitoring. “not met” should read “not reached or exceeded”. Change wording as to increased focus by CMG, because the site was NOT “unsuccessful” in 2016. “Not met during the 2017...” should read “not exceeded during the 2017...”	See Response to Comment 21  In March 2015, the CMG agreed to prioritize areas that are either statistically uncertian or clearly exceed thresholds to be the focus of improved management to include monitoring and stockmanship. This is to help ensure that thresholds are met at the end of the year. The NRST has recommended that these measures continue to be implemented by the permittees as part of their stockmanship plan during the 2017 Grazing Year.
79	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 54: Get rid of more likely language. This site “exceeded” the threshold in 2015, and “reached but did not exceed” the threshold in 2016. Delete discussion of streambank alteration; it is not a part of the required annual monitoring. “not met” should read “not reached or exceeded”. Change wording as to increased focus by CMG, because the site was NOT “statistically uncertain” in 2016. “Not met during the 2017...” should read “not exceeded during the 2017...”	See Response to Comment 21  In March 2015, the CMG agreed to prioritize areas that are either statistically uncertian or clearly exceed thresholds to be the focus of improved management to include monitoring and stockmanship. This is to help ensure that thresholds are met at the end of the year. The NRST has recommended that these measures continue to be implemented by the permittees as part of their stockmanship plan during the 2017 Grazing Year.

No.	Commenter	Comment	BLM Response
80	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 55: Get rid of more likely language. This site “exceeded” the threshold in 2015, and “reached but did not exceed” the threshold in 2016. Delete discussion of streambank alteration; it is not a part of the required annual monitoring. Change wording as to increased focus by CMG, because the site “reached” the threshold. “Not met during the 2017...” should read “not exceeded during the 2017...”	See Response to Comment 21,  See Response to Comment 25; The MLFO agrees that streambank alteration is not required, however in a effort to be transparent this data is reported.  In March 2015, the CMG agreed to prioritize areas that are either statistically uncertain or clearly exceed thresholds to be the focus of improved management to include monitoring and stockmanship. This is to help ensure that thresholds are met at the end of the year. The NRST has recommended that these measures continue to be implemented by the permittees as part of their stockmanship plan during the 2017 Grazing Year.
81	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 56: “not met” should read “not reached or exceeded”. Delete discussion of streambank alteration; it is not a part of the required annual monitoring.	See Response to Comments 21 & 25
82	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 57: “not met” should read “not reached or exceeded”. Delete discussion of streambank alteration; it is not a part of the required annual monitoring.	See Response to Comments 21 & 25
83	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 59: “was met” should read “was exceeded”. Delete discussion of streambank alteration; it is not a part of the required annual monitoring. Get rid of more likely language. This site “exceeded” the threshold in 2015, and “reached but did not exceed” the threshold in 2016. Change wording as to increased focus by CMG, because the site was NOT “statistically uncertain” in 2016.	See Response to Comments 21 & 25  The results of the woody browse data were statistically uncertain as an average utilization of 24%±8% overlaps the 30% utilization threshold  The NRST has recommended, with agreement from the BLM, consistently through this process that sites that are statistically uncertain and clearly exceed thresholds will be the focus of improved management to include monitoring and stockmanship.
84	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 61: Get rid of more likely language. “was met” should read “was exceeded”. Delete discussion of streambank alteration; it is not a part of the required annual monitoring. “not met” should read “not reached or exceeded”. Change wording as to increased focus by CMG, because the site was NOT “statistically uncertain” in 2016.	See Response to Comments 21 & 25  Woody Browse measured in 2016 on Indian Creek was 36%±11%. The monitoring threshold for woody browse is 30%. The 95% confidence interval overlaps the threshold and the result is statistically uncertain.  The NRST has recommended, with agreement from the BLM, consistently through this process that sites that are statistically uncertain and clearly exceed thresholds will be the focus of improved management to include monitoring and stockmanship.
85	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 63: Get rid of more likely language. Delete discussion of streambank alteration; it is not a part of the required annual monitoring. Change wording as to increased focus by CMG, because the site was NOT “statistically uncertain” in 2016.	See Response to Comments 21 & 25  Stubble Height measured in 2016 was 4.7 Inches ± .08 Inches. The confidence interval overlaps the threshold, therefore it is statistically uncertain  In March 2015, the CMG agreed to prioritize areas that are either statistically uncertain or clearly exceed thresholds to be the focus of improved management to include monitoring and stockmanship. This is to help ensure that thresholds are met at the end of the year. The NRST has recommended that these measures continue to be implemented by the permittees as part of their stockmanship plan during the 2017 Grazing Year.
86	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 64: “was met” should read “was exceeded”. Delete discussion of streambank alteration; it is not a part of the required annual monitoring. “Exclosure” should read “drift fence”.	See Response to Comments 21 & 25  The "Exclosure" referred to is the round II exclosure. This comment is noted and clarified.
87	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 65: “was met” should read “was exceeded”. Delete discussion of streambank alteration; it is not a part of the required annual monitoring. “are show” should read “show”. “not met” should read “not exceeded”.	See Response to Comments 21 & 25

No.	Commenter	Comment	BLM Response
88	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 66: “not met” should read “not reached or exceeded”. Delete discussion of streambank alteration; it is not a part of the required annual monitoring.	See Response to Comments 21 & 25
89	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 67: “was met” should read “was exceeded”. Delete discussion of streambank alteration; it is not a part of the required annual monitoring. “Not met during the 2017...” should read “not exceeded during the 2017...”	See Response to Comments 21 & 25
90	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 68: “was met” should read “was exceeded”. Delete discussion of streambank alteration; it is not a part of the required annual monitoring. “not met” should read “not reached or exceeded”.	See Response to Comments 21 & 25
91	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 69: “was met” should read “was exceeded”. Delete discussion of streambank alteration; it is not a part of the required annual monitoring.	See Response to Comments 21 & 25
92	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 72: First paragraph - “did not meet” happens to be correct here, but reword it to “exceeded”. “met” here is correct.	See Response to Comments 21
93	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 72: Second paragraph, relative to 2015, “met” should read “exceeded”. Relative to 2016, “met” is used correctly.	See Response to Comments 21
94	Intermountain Range Consultants Bob Schweigert January 30, 2017	Page 79: “met” is used correctly here.	Comment Noted
95	Intermountain Range Consultants Jamie Dafoe January 30, 2017	Page 5 :What exactly is meant by “statically uncertain”, seems rather misleading. Per Elzinga its not “uncertain”, its just within a statistical average which means its within a range (CI) of “being certain”. It seems more prudent to directly quote the terms determined in Figure 3 when referencing these thresholds and CI’s. It will be easier for the general public to understand as well if reference is made back to Figure 3 throughout the document as the figure clearly defines what a “threshold met”, “threshold not met”, etc. means.	This statement has been clarified on page 5. Additionally to help remedy the confusion, Figure 3 has been replaced.
96	Intermountain Range Consultants Jamie Dafoe January 30, 2017	Page 6: What exactly does “some of these sites MAY see the use of jackrail fencing” mean? The NEPA decision has been made for round 2 and there will be jackrail fencing going in in 2017.	While these exclosures are authorized, there are seasonal timing restrictions between November 1th to September 15th. MLFO is coordinating with NDOW to see if a waiver would be appropriate. While this process is in motion, it would be misleading to the public to state that these projects will be built during the 2017 grazing year. It is important to emphasize that the potential of local variations in seasonal habitat being will confirmed by NDOW, and if there is flexibility for allowing construction during a seasonal habitat as locally appropriate.
97	Intermountain Range Consultants Jamie Dafoe January 30, 2017	Page 21: Due to the way the bar graph is set up it appears there was no herbaceous measurement for Whirlwind3 2016 and Fire Creek 2015. I did read the “other empty values” phrase, however it should be specified that Whirlwind 3 2016 was monitored and had 0% use as well as for Fire Creek 2015. There WAS herbaceous data collected on AG21 in 2015. Due to the trend direction taken in 2015, there was insufficient AGCR to calculate utilization, thus the change in trend direction and increase in key species for 2016. Herbaceous data was collected for AG09 in 2015. We did not have a curve for the key species at that site in 2015. There has since been a curve developed, provided to the CMG and utilization calculated. There WAS herbaceous data collected on South Flat AG04 in 2015. POSE was the key species and the utilization was 20%.  To reiterate Bob’s comments this page needs to be completely re-done.	Comments Noted, corrections have been made as appropriate.

No.	Commenter	Comment	BLM Response
98	Intermountain Range Consultants Jamie Dafoe January 30, 2017	Page 22: The second paragraph makes no sense. I find the phrase “demonstrable increase in utilization” completely misleading. Is the BLM considering going from 0% to 10% (ie Fire Creek) “demonstrable”? Nothing is specified as to what is being referred to, ie. its reported on page 21 that AG21 had no herbaceous data collected in 2015 yet this paragraph references AG21 showing “higher utilization”, higher utilization of what? Is the paragraph lumping woody utilization (AG21) with herbaceous utilization (Fire Creek)? In my professional opinion, upland herbaceous and woody utilization should not be “lumped together” in such a way if, in fact, that is what this paragraph was meaning to do?	As the CMG recommended to the MLFO, there will be no reporting of a statistically significant increase in utilization unless it moves from meeting thresholds to either not meeting thresholds or to a zone of statistical uncertainty.  The discrepancies in data collected with 0% utilization, Data Collected but not used due to insufficient sample size and Data not collected is noted and will be corrected as applicable in the final report.
99	Intermountain Range Consultants Jamie Dafoe January 30, 2017	Page 25: Fire Creek: IRC calculated the squirreltail utilization at 14% using the USFS Utilization Gauge. The report calculates the utilization at 20%. Im not certain why there is a such discrepancy in the numbers.	The average ungrazed height was origionally measured at 14.4 Inches, there was one sites that was recorded incorrectly as 89 when the actual recorded value was 9. This lowered the average ungrazed value to 10.4. Because a taller average ungrazed height was being used with the curve, individual measurements were being caluclated at a higher value. These corrections have been made.