

Addendum to Blue Mountains Biological Assessment and Appendices

The Forest Service (FS) received a verbal agreement on August 9, 2017, from the Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) that the draft biological assessment (BA) on the revised Blue Mountains Forest Plans was complete and ready to submit for a final review. The FS delivered a draft BA in late August 2017 to the FWS and NMFS for their 30 day sufficiency review.

During the Services' review of the draft BA, concerns emerged from Cooperating Counties on the revised Plan's grazing guideline GM-3G. On October 16, 2017, discussions were held about guideline GM-3G between the FS, FWS, NMFS, cooperating counties (Wallowa, Union, Grant, Harney, Wheeler, Morrow, Columbia), and others (e.g., Representatives Walden and McMorris Rodgers, and Senators Wyden and Markley). On October 31, 2017, these entities again met and identified modifications to GM-3G for the FS to consider. The FS determined these changes are acceptable and should be considered in the ESA consultation, as these modifications are limited, and will continue to guide positive trends established by management under the Pacfish and Infish amendments, while ensuring continued, viable livestock use on the National Forests.

Based on this FS determination, the following changes are provided to the BA, Appendix A (ARCS), Appendix B (ARCS crosswalk with the interim Pacfish and Infish strategies), and Appendix H (Scientific Basis for Annual Livestock Use and Disturbance Indicator Guideline (GM-3G) in the Blue Mountains Forest Plans). One error was also caught relating to the timing of watershed analysis in Appendix A (ARCS). This has been corrected below.

Biological Assessment

Purpose of BA, second to last sentence above the Hells Canyon NRA Comprehensive Management Plan (Page 14) – Replace the following sentence with: However, GM-3G will have an implementation schedule from 5 to 7 years (within 5 years re-evaluate allotments with ESA species, within 7 years non-ESA allotments) that allows the FS time to assess condition and trend of water quality, aquatic habitat, and riparian vegetation conditions based on the best available information at the appropriate spatial scales prior to assigning values from the guideline.

Blue Mountains Aquatic Riparian Conservation Strategy, MA 4B Livestock Grazing and Grazing Land Vegetation subsection (Page 79) – Replace entire GM-3G guideline with:

Guideline GM-3G. The purpose of this guideline is to manage livestock grazing to help attain and maintain aquatic and riparian desired conditions over time. Specifically, it is intended to maintain or improve vegetative and stream conditions, help ensure the viability of aquatic species, provide important contributions to the recovery of ESA-listed species, and facilitate attainment of State water quality standards.

The annual livestock use and disturbance indicators described below should be applied to help achieve, over longer timeframes, conditions at site and watershed scales that enable attainment and maintenance of desired conditions. The values specified below are starting points for

management. Only those indicators and numeric values that are appropriate to the site and necessary for maintaining or moving towards desired conditions should be applied.¹ Specific indicators and indicator values should be prescribed and adjusted, if needed, in a manner that reflects existing and desired conditions and the natural potential of the specific geo-climatic, hydrologic and vegetative setting in which they are being applied². Indicators and indicator values should be adapted over time based on long-term monitoring and evaluation of conditions and trends. Alternative use and disturbance indicators and values, including those in current ESA consultation documents or non-ESA allotment management plans or allotment NEPA decisions, may be used if they are based on best available science and monitoring data and meet the purpose of this guideline.

1. Where desired conditions for water quality, aquatic habitat, and riparian vegetation have been attained³ and riparian vegetation is in late-seral conditions⁴, protect or maintain those conditions by managing annual livestock grazing use and disturbance as follows⁵:

- maintain a minimum of 4-inch residual stubble height⁶ of key herbaceous species on the greenline;
- utilize no more than 30-45 percent of deep-rooted herbaceous vegetation in the active floodplain⁷ and, as needed, in other critical portions of the riparian management area;
- limit streambank alteration⁸ to no more than 20-25 percent; and
- limit use of woody species to no more than 30-40 percent of current year's leaders along streambanks and, as needed, in other critical portions of the riparian management area.

¹ Not all indicators may apply to a particular site. For example, stubble height is a meaningful indicator for lower gradient streams where herbaceous vegetation plays an important role in stabilizing streambanks. It is generally less useful for steeper channels, where channel morphology is controlled by coarse substrates. Moreover, not all numeric values may apply to a particular site (e.g., sites with short graminoids).

² Indicator values for specific sites should be determined based on consideration of local conditions including, but not limited to, the degree of departure between existing and desired conditions, the current and desired rate of improvement, site sensitivity to grazing, grazing season, the presence of special status species (e.g., ESA-listed species, Regional Forester's sensitive species) that are sensitive to grazing, whether or not water quality standards and related requirements (e.g., TMDLs for impaired waters) are being met, and the site's importance in maintaining or attaining those standards and requirements. Consideration of these conditions is especially important in prescribing specific stubble height values within the 4-inch to 6-inch range and streambank alteration values within the 15-20% range.

³ Assessment of conditions and trends should be based on best available information at a variety of spatial and temporal scales. Site-specific information is particularly important.

⁴ Late seral conditions means the existing riparian vegetation community is similar to the potential natural community composition (per Winward 2000).

⁵ Per Pacfish/Infish Monitoring, Multiple Indicator Monitoring (BLM Technical Reference 1737-23) protocols or comparable methods for stubble height, streambank alteration, and use of woody species. Per Bureau of Land Management protocols (BLM/RS/ST-96/004+1730) or comparable methods for herbaceous utilization.

⁶ Stubble height criteria apply at the end of the grazing period, when that period ends after the growing season. When the grazing period ends before the growing season does, stubble height criteria can be applied at the end of the grazing period or the end of the growing season.

⁷ Active floodplain is defined as the area bordering a stream inundated by flows at a surface elevation that is two times the maximum bankfull depth (measured at the thalweg).

⁸ Streambank alteration criteria apply within 1-2 weeks of removal of livestock from each pasture.

2. Where desired conditions for water quality, aquatic habitat, and/or riparian vegetation have not yet been attained, but conditions are moving towards those desired conditions³, enable continued recovery by managing annual livestock grazing use and disturbance as follows:
 - maintain a minimum of 4-inch to 6-inch residual stubble height of key herbaceous species on the greenline²;
 - follow the criteria for utilization of deep-rooted herbaceous vegetation, streambank alteration, and use of woody species described in (1).
3. Where desired conditions for water quality, aquatic habitat, and/or riparian vegetation have not been attained and conditions are not moving towards those desired conditions³, enable recovery by managing annual livestock grazing use and disturbance as follows:
 - maintain a minimum of 6-inch residual stubble height of key herbaceous species on the greenline;
 - utilize no more than 30-35 percent of deep-rooted herbaceous vegetation in the active floodplain and, as needed, in other critical portions of the riparian management area;
 - limit streambank alteration to no more than 15-20 percent²; and
 - limit use of woody species to no more than 20-30 percent of current year's leaders along streambanks and, as needed, in other critical portions of the riparian management area.

Livestock Grazing and Grazing Land Vegetation Effects Analysis (Pages 231 to 233) –

Replace the entire grazing effects analysis with the following:

The total grazing land within the planning area is approximately 3,395,000 acres, or approximately 69 percent of the national forests.

Table 1. Active allotments and allotments suitable for grazing for each national forest (existing condition 2013)

Measure	MAL	UMA	WAW (excluding HCNRA)
Total NFS lands in the planning area	1,700,000 acres	1,400,000 acres	1,800,000 acres
Active livestock grazing allotments (all land types)	1,551,000 acres	826,000 acres	978,000 acres
Percent of national forest in active allotments	91%	59%	54%
Suitable acres in active cattle and sheep grazing allotments	1,299,000 acres	344,000 acres	433,000 acres
Percent of acres suitable for livestock grazing in active allotments	83%	42%	44%
Percent of national forest suitable for livestock grazing (percent suitable within active allotments relative to all NFS lands)	76%	25%	24%

The Revised Forest Plan does not include any changes to grazing allotment boundaries or elimination or addition of grazing allotments, but does include new desired conditions and standards and guidelines for managing the grazing program.

Recent monitoring and assessments suggest watershed and stream habitat conditions appear to be maintaining or restoring watershed and stream habitat conditions at the Pacfish and Infish strategy scale (Archer and Ojala 2016, Roper 2014). While trends for some PIBO parameters show improvement, as displayed in the baseline, the current status of many habitat metrics on the three forests are still highly departed from reference conditions. Grazing is also still being identified as a major factor in decline for each listed fish species in each recovery plan. Specifically, improper grazing has reduced stream habitat complexity and floodplain connectivity and function, and degraded riparian conditions in tributary habitat. The potential effects of livestock grazing on fish habitat have been well documented (e.g., Platts 1991, Spence et al. 1996). The potential adverse effects of grazing include soil erosion and sediment delivery to streams; soil compaction; alteration or removal of riparian vegetation that provides shade, cover, a terrestrial food source, and which stabilizes stream banks; and altered channel morphology including channel widening, increased bank instability, and loss of undercut banks. Al-Chokhachy et al. (2010) found the presence of cattle in watersheds sampled across the interior Columbia Basin and the Missouri River Basin often resulted in degraded physical aquatic habitat conditions. Excessive grazing can cause impacts that move a system beyond its short-term ability to maintain functionality. Excessive impacts over an extended period can cause the system to cross thresholds that permanently alter it beyond its ability to recover (Laycock 1994, Miller et al. 1994) especially where grazing occurred in watersheds with high road densities.

Salmonid species are especially vulnerable to grazing during early development stages, when fish are less mobile, and large numbers of embryos or young are concentrated in small areas. Livestock entering spawning areas can trample redds, and destroy or dislodge embryos and fry. The vulnerability of embryos and fry to mortality from trampling, wading, and other types of disturbance often decrease as fish become more mature and mobile.

The Revised Forest Plan provides a number of desired conditions specific to RMAs, instream habitat, and aquatic species. As mentioned previously, Federally Listed Species DC-1 states, “critical habitat components (PBFs) are protected and restored to achieve species recovery.” Aquatic Habitat Function DC-1 states, “Aquatic habitats contribute to ecological conditions capable of supporting self-sustaining populations of native species, and diverse plant, invertebrate, vertebrate aquatic and riparian-dependent species.” Aquatic Habitat Function DC-3 states, “National Forest System lands contribute to the protection of population strongholds for federally listed or proposed threatened and endangered aquatic species and designated critical habitats, as well as for a diversity of other at-risk aquatic species including Forest Service sensitive species, narrow endemics, and commercially fished species of Pacific salmon.” Finally, Riparian Management Area DC-2 states, “Key riparian processes and conditions (including slope stability and associated vegetative root strength, bank stability, wood delivery to streams, and, within the riparian management areas, input of leafy and other organic matter to aquatic and terrestrial systems, solar shading, microclimate, and water quality) are operating consistent with natural disturbance regimes.”

These desired conditions provide improved and more specific guidance than PACFISH and INFISH goals for management of grazing in riparian areas. These reflect the desire to move

RMA and instream conditions to operate consistent with natural disturbance regimes and reflect a natural composition and distribution of native plants and animals. It also ensures existing strongholds for federally listed and proposed species are protected. Appendix I contains lists of stronghold subwatersheds associated with each of the national forests in the action area.

The Revised Forest Plan contains three standards and three guidelines specifically developed to avoid or minimize the potential adverse grazing effects to riparian and aquatic habitat. Standard GM-1 establishes a high level of aquatic resource protection since livestock grazing cannot retard attainment of desired conditions. This means that if monitoring indicates conditions are not improving when outside of desired conditions, appropriate steps will need to be taken to adjust grazing practices. If monitoring continues to show conditions not improving, then livestock will need to be removed. These actions should in time lead to improved riparian and aquatic conditions where impaired.

Context for GM-3G Changes

In the development of GM-3G the Forest Service has emphasized the importance of using the best available science along with site specific information, circumstances, and conditions. There has been recognition all along that inference and professional judgement must be made to interpret and apply the best available scientific information in the crafting of the guideline. And there has also been recognition and wording in the guideline emphasizing the importance of site specific information, circumstance, and conditions. While those two things have not changed in principle in the latest iteration of GM-3G, we have seemingly had difficulty at times getting stakeholders to agree that we have properly provided for both. That in part, is what led to the revised proposal for GM-3G which has restructured some of the language, in particular with respect to the importance of site specific circumstances and conditions.

The original GM-3 more prominently identified instances where more conservative indicator values could and should be applied but it was less descriptive of where less restrictive indicator values that address fish and aquatic conservation needs might be appropriate. While some of the more restrictive language has been altered or removed in the latest iteration of GM-3G, the guideline does not preclude implementation of those more restrictive measures. For example the guideline frequently includes wording such as “maintain a minimum of” language that suggests that more restrictive measure might be appropriate and necessary based on site specific information, circumstances, and conditions in individual allotments.

GM-3G is a guideline that applies to areas that contain federally listed fish and areas that do not. That too created confusion and concern with stakeholders, particularly when forecasting requirements in allotments without ESA listed fish; that too provided some impetus for revising the original GM-3G guideline. We believe we have better addressed that with this iteration. For example, in circumstances where desired conditions are not yet met, but are trending in that direction, the guideline prescribes a 4-6” range be applied. It goes on to identify factors that should be considered to appropriately establish the indicator value within that range. Most notably, those factors include presence of ESA listed species, as well as the degree of departure between existing and desired conditions, and current and desired rate of improvement. As needed then, under GM-3G requirements can be prescribed consistent with the existing PACFISH guidance found in enclosure B of the document (i.e. a minimum of 6”).

Revised GM-3G

GM-3G provides a further basis to manage livestock grazing to maintain or move towards desired conditions described in the Revised Forest Plan. Specifically, this guideline it is intended: (1) provide more current, consistent, and objective grazing management across the entire Blue Mountains based on best available science; and (2) maintain or improve riparian vegetative and stream conditions improving the viability of Regional Forester sensitive aquatic species, contributing to the recovery of ESA-listed species, and facilitating the attainment of State water quality standards over the long-term.

GM-3G includes four annual use indicators (stubble height, utilization of deep-rooted herbaceous vegetation, streambank alteration, and use of woody species) and default numeric range of indicator values used to detect change and adaptively manage riparian resources. These indicators were chosen because they generally: 1) have demonstrated or plausible relationships to grazing intensity, 2) are representative of cumulative impacts throughout the season, 3) have demonstrated or plausible relationships to long-term stream conditions, 4) are regularly used by field personnel, and 5) have readily implementable field protocols that are reasonably repeatable.

Because riparian areas and streams are extremely diverse (Sayre et al. 2012, Swanson et al. 2015), the guideline recognizes that not all indicators are appropriate to every situation (Bryant et al. 2006, Clary and Leininger 2000). Only indicators and indicator values appropriate to a particular site would be applied. Indicators and associated values should be adjusted based on site-specific conditions (e.g., natural site potential, similarity of existing conditions to desired conditions, and ability of the area to resist livestock impacts and to recover once disturbed). For example, stubble height is a less meaningful indicator for steeper channels, where channel morphology is controlled by coarse substrates. Annual use indicators, when properly selected and applied should help achieve aquatic and riparian desired conditions over time.

The livestock use indicator values described in GM-3G are a starting point for management based on three condition scenarios for water quality, aquatic habitat, and riparian/wetland vegetation. These include:

- Where desired conditions for water quality, aquatic habitat, and riparian and wetland vegetation **have been attained and riparian vegetation is in late-seral conditions**, annual livestock grazing use must protect or maintain those conditions by applying appropriate indicators and values (e.g., utilize no more than 30-45 percent of deep-rooted herbaceous vegetation; streambank alteration to no more than 20-25 percent; woody species to no more than 30-40 percent of current year's leaders; and a minimum stubble height of 4" of key herbaceous species on the greenline).
- Where desired conditions for water quality, aquatic habitat, and/or riparian vegetation **have not yet been attained, but conditions are moving towards those desired conditions**, enable continued recovery by managing annual livestock grazing use and disturbance by maintain a minimum of 4 to 6" residual stubble height of key herbaceous species on the greenline. Criteria for utilization of deep-rooted herbaceous vegetation, streambank alteration, and use of woody species would remain the same as those

described desired conditions have been attained and where riparian vegetation is in lateral.

- Where desired conditions for water quality, aquatic habitat, and/or riparian vegetation **have not been attained and conditions are not moving towards those desired conditions**, a set of minimum indicator values (e.g., e.g., minimum of 6” of residual stubble height of key herbaceous species on the greenline; utilize no more than 30-35 percent of deep-rooted herbaceous vegetation; streambank alteration to no more than 15-20 percent; woody species to no more than 20-30 percent of current year’s leaders) would be applied to move conditions to desired conditions overtime.

Incorporation of best available science and monitoring data within the Blue Mountain Forests in the development of GM-3G and implementation expectations.

Appendix H of the BA provides a detailed description of the best available science that supports GM-3G, including key conclusions that support why application of the appropriate indicator values under GM-3G will help move aquatic and riparian areas toward desired conditions. In addition to discussion of the relevant scientific literature, Appendix H also discusses information and inference that can be derived from monitoring and assessment data from the Blue Mountains. These evaluations figured prominently in the multi-party discussions that lead to the revised GM-3 guidelines.

Some of the important information and inferences (specific to the Blue Mountains Forests) that were shared with the Cooperating Counties and the involved Federal Agencies, and were foundational in the updated proposed GM-3G, above, are discussed in Appendix H and summarized below. We expect that these finding will inform deliberations of the indicator values at the allotment level consistent with the GM-3G guideline. Those findings include the following:

- Though inconsistencies and variability exist with residual stubble height implementation data, there does appear to be a relationship between residual stubble height implementation results and trends observed in stream condition.
- Across the Blue Mountain Forests, sites with residual stubble heights of 4-6” are generally associated with better stream conditions than those with residual stubble heights less than 4”.
- Sites with greater than 6” residual stubble heights are generally representative of streams in the best condition and those that most closely reflect reference conditions.
- Monitoring results indicate that the Malheur NF has the fewest instances of stubble heights below 4 inches and the Malheur also shows the greatest rate of improvement in stream condition.

These findings along with the scientific literature helped frame the guideline specific to stubble height requirements.

Other important scientific studies that helped frame the utilization, stream bank disturbance, and woody browse guidance in GM-3G are:

- Maximum utilization rates of 30-35% for deep-rooted herbaceous plants specified for situations where desired conditions have not yet been achieved and conditions are not

moving towards them are considered ‘conservative’ or somewhere between ‘moderate’ to ‘light’ grazing intensity, respectively (Clary and Leininger 2000, Holechek et al. 1999).

- Bengeyfield (2006) found two degraded streams on the Beaverhead-Deerlodge NF in southwest Montana were recovering and beginning to resemble the shape (narrower and deeper) of an undisturbed ‘reference reach’ when bank alteration was reduced over the course of 7 years and had ultimately reached levels of 15-17%, as measured using a line intercept method.
- Browse rates on woody species of 20-30% specified when desired conditions have not been met and conditions are not improving are comparable to those cited in Winward (2000) who characterized utilization values of 20-40% on woody species as ‘light’ grazing that should avoid reductions in seed production.

Timeframe to implement GM-3G and evaluation of existing condition and trend

The information used to characterize existing condition and evaluate trend toward desired condition was another issue that prompted conversation that ultimately led to the revised GM-3G. Use of the Watershed Condition Framework (WCF) in the evaluation of existing condition was in particular a point of confusion and concern for the Cooperating Counties. The WCF is now not specifically identified in GM-3G as a driver in establishing existing condition. It will, however, be information that can and will be used as part of the evaluation. We have clarified that there is other specific and local information that will also play a prominent role. In short, establishing condition and trend will be a body of evidence approach using information at multiple scales.

As for the timing of implementation, under the revised GM-3G we propose that within five years of signing of the Records of Decision (RODs) the GM-3 guidelines in the plan will have been implemented in all allotments with ESA listed fish. We expect that an interdisciplinary team comprised of (at a minimum) range, watershed, and fisheries personnel will adjust indicator values, again, based on a weight-of-evidence approach using the best available information (e.g. local monitoring data {MIM, PIBO, Champ, etc.} and aquatic assessments {watershed condition framework, TMDLs, listed species recovery plans, etc.}) at the appropriate spatial and temporal scales in relation to the subwatershed being assessed where livestock grazing occurs. The same process will be followed within seven years for remaining allotments on the three forests. This will provide a more accurate depiction of existing conditions to guide long-term range management and recovery of impaired aquatic resources. Until this evaluation is completed allotments and pastures would use current indicator values as informed by allotment management plans and NEPA decisions or requirements from current Biological Opinions at the allotment level.

Comparison to Existing Pacfish/Infish Strategies

GM-3G provides indicators and numeric values that are not included within the standards and guidelines associated with the Pacfish and Infish aquatic strategies (USDA and USDI 1995a, 1995b, 1995c, 1995d), which amended existing Forest plans throughout the Blue Mountains. Comparable indicators and numeric values are, however, included in inter-regional PACFISH ‘implementation guidance’, entitled Recommended Livestock Grazing Guidelines (USDA FS

and USDI BLM 1995e). GM-3G differs from the Pacfish implementation guidance in that it applies to all areas that will be implementing the Blues ARCS. Moreover, once adopted into the Forest Plans, GM-3G will be a plan component. Consequently, it is more enforceable than the PACFISH ‘recommended guidelines’ that were issued as implementation guidance. As such, GM-3G will continue the positive trends in aquatic and riparian habitat conditions across the Forests as well as address the need for more consistent, objective grazing management direction across the entire Blues ARCS domain and for greater assurances that this direction will be implemented than previous Pacfish and Infish guidance.

Conclusions - GM-3G and Other Plan Guidance

When GM-3G is used in conjunction with GM-1S, RMA-1S and WM-1S, a reduction in the threats posed by grazing management should be realized. As previously discussed, RMA-1S and WM-1S requires projects to restore or not retard attainment of desired conditions to the degree that project contributes to impaired baseline conditions. GM-1G states that livestock grazing must be managed to attain aquatic and riparian desired conditions and when grazing prevents or retard attainment of aquatic and riparian desired conditions, grazing should be modified. If adjustments are not effective, then livestock should be removed using appropriate administrative authorities and procedures. These other standards and guidelines reinforce the intent of GM-3G to maintain properly functioning conditions and make the appropriate management changes to enable improvement of impaired conditions.

GM-2S, GM-5G, and GM-6S should collectively help to minimize redd and fish disturbance by taking appropriate management actions to avoid redd trampling and locating trailing, watering, loading, and other handling outside of RMAs. GM-2S, GM-4G, and GM-5G should also help to reduce livestock grazing pressure aquatic resources by locating new and relocating existing facilities outside of RMAs unless it can be shown that they will not prevent or retard attainment of desired conditions. Collectively, GM-3G and other Revised Forest Plan direction will facilitate protection and recovery of aquatic and riparian resources and ESA-listed fish and critical habitat, while supporting continued grazing of NFS lands. Monitoring and adaptive management should help guide additional protection to listed fish and their habitat, if needed.

References (Page 304) – The following needs to be added to the reference section:

Roper, B. 2014. Stream habitat conditions in the Interior Columbia Basin. Unpublished dataset, used with permission.

Appendix A Blue Mountains ARCS

Ecosystem Management (Page 17) – Replace existing sentence with: These matrices will be used in conjunction with Standards and Guidelines (e.g., WM-1S and RMA-1S) framed around the watershed conditions that measure ‘Functioning Appropriately (bull trout)/Properly Functioning (steelhead/Chinook)’, ‘Functioning at Risk (bull trout)/At Risk (steelhead/Chinook)’ and ‘Functioning at Unacceptable Risk (bull trout)/Not Properly Functioning (steelhead/Chinook)’ for a variety of metrics.

Grazing Management in Riparian Areas (Page 54) – Replace GM-3G language with what is described on pages 1 to 3 of this addendum.

Attachment B Land Management Plan Direction (Page 144) – Use the new language “Guidance in this Appendix is specifically tied to standards WM-1S and RMA-1S, within the revised plan” to replace what’s on page 144.

Timing of Watershed Analysis (Page 75) – Please the existing timing language with this: As applicable, watershed analysis will be updated or conducted prior to:

- Implementation of Watershed Restoration Action Plans in WCF Priority Watersheds;
- Proposed changes to RMA widths must be supported by a watershed analysis. It is expected that RMA widths will not be less than described in the Designating Riparian Management Areas section; and
- Proposed timber salvage or construction of facilities in RMAs.

Watershed analysis is generally conducted prior to project-level NEPA. However, watershed analyses can be conducted concurrent with the NEPA process in some situations. This approach may be most appropriate where watershed analyses have been completed in the past, but need modest updates. It may also be appropriate for new analyses or significant updates, when the projects being planned and evaluated in NEPA cover a wide range of activities over large areas and multiple years.

Appendix B Pacfish/Infish and ARCS Crosswalk

INFISH/PACFISH Riparian Management Objectives (Page 15) – Replace GM-3G language in crosswalk with what is described on pages 1 to 3 of this addendum.

Grazing Related Direction (Page 38) - Replace GM-3G language in crosswalk with what is described on pages 1 to 3 of this addendum.

Appendix H Scientific Basis for Annual Livestock Use and Disturbance Indicator Guideline (GM-3G) in the Blue Mountains Forest Plans

The entire appendix H is replaced with an updated appendix provided in a separate attachment.