

East Bench Watershed Assessment
Executive Summary and Authorized Officer's
Determination



Bureau of Land Management
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This document summarizes the findings of the East Bench Watershed Assessment (EBW) conducted during the 2008 field season. The assessment area covers approximately 23,000 acres of public land administered by the Bureau of Land Management (BLM) in Madison and Beaverhead County, Montana. The watershed includes 14 grazing allotments and about 5,300 acres of un-allotted land in the Ruby Mountain Wilderness Study Area (WSA).

The BLM is currently working on National Environmental Policy Act (NEPA) documentation. The NEPA document will include all BLM-administered public lands covered in the East Bench Assessment. Alternative management will be analyzed wherever it is determined that allotments are not meeting the Standards, allotments are meeting the Standards but have site specific resource concerns, there are noxious weed infestations, unhealthy forest conditions, and/or fuels conditions outside the natural range of variability.

The table below summarizes the determination of rangeland health standards by allotment. It also briefly describes resource concerns identified by the interdisciplinary team (IDT), and preliminary recommendations to revise management and mitigate these concerns.

Allotment Name Number Category	Are Healthy Rangelands Standards Being Met?					Primary Resource Concerns	ID Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-diversity		
Belmont South Isolated #20320 Custodial	Yes	NA	NA	Yes	Yes	1. No resource concerns identified.	1. Renew ten year grazing lease under current terms and conditions
Big Sheep #10513 Custodial	Yes	Yes	#	Yes	Yes	1. No resource concerns identified.	1. Renew ten year grazing lease under current terms and conditions.
Carter Creek #10534 Custodial	Yes	Yes	#	Yes	Yes	1. Increasing juniper in riparian zone. 2. Houndstongue, thistle and cheatgrass present.	1. Renew ten year grazing lease under current terms and conditions. 2. Consider riparian juniper treatment on reach 433, Carter Creek. 3. Coordinate weed treatments with private land owners and Beaverhead County.
Garden Creek Isolated #30601 Custodial	Yes	No	#	Yes	Yes	1. Stream reach #880, Big Dry Creek, did not meet Standard due to lack of herbaceous species on banks, overwidened channel, and a few headcuts.	1. Adjust terms of grazing lease specifying no livestock trailing up Ladder Canyon and Big Dry Creek.

Allotment Name Number Category	Are Healthy Rangelands Standards Being Met?					Primary Resource Concerns	ID Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-diversity		
Hoffman Creek Isolated #10511 Custodial	Yes	NA	NA	Yes	Yes	1. No resource concerns identified.	1. Renew ten year grazing lease under current terms and conditions.
Lark Isolated # 30678 Custodial	Yes	NA	NA	Yes	Yes	1. No resource concerns identified.	1. Renew ten year grazing lease with current terms and conditions
McHessor Creek #10530 Improve	Yes	No	No ¹	Yes	Yes	<p>1. The Riparian health on several streams is not meeting the Standard, due to over-widened channels, loss of herbaceous and woody vegetation, sedimentation, and/or bank disturbances.</p> <p>2. Declining forest health due to insect and disease infestations.</p> <p>3. Conifer encroachment into forested areas previously harvested.</p>	<p>1. Revise grazing management and design projects to restore or improve riparian function in several pastures where streams/ wetlands are not meeting the Riparian Standard.</p> <p>2. Consider creating a riparian pasture or enclosure to protect WCT habitat in Trout Creek.</p> <p>3. Analyze the use of mechanical treatments and/or prescribed fire to reduce fuel loading, improve forest health, and utilize timber resources.</p> <p>4. Analyze the use of prescribed fire and/or mechanical treatments to maintain open stand conditions in previously harvested areas in the Spring Creek drainage.</p>
McHessor Creek Isolated #10680 Custodial	Yes	NA	NA	Yes	Yes	1. No resource concerns identified.	1. Renew ten year grazing lease with current terms and conditions.

Allotment Name Number Category	Are Healthy Rangelands Standards Being Met?					Primary Resource Concerns	ID Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-diversity		
Middle Fork #20525 Improve	Yes	No	#	Yes	No	1. Riparian health on the Middle Fork is not meeting Standard due to: over-widened channels, loss of herbaceous and woody vegetation, sedimentation, bank disturbances, headcuts, and/or blown out beaver dams. 2. Stone Creek spring development in poor condition.	1. Construct a fence with water gaps on the north side of Middle Fork creating a riparian pasture/exclosure. 2. Revise the terms and conditions for livestock grazing in the Middle Fork allotment. Analyze changes to season of use, length of season, numbers of allocated AUM's and/or numbers of authorized cattle. 3. Reconstruct the Stone Creek Spring water development.
North Fork AMP #10482 Maintain	Yes	NA	NA	Yes	Yes	1. No resource concerns identified.	1. Renew ten year grazing lease with current terms and conditions
Nyhart #20470 Custodial	Yes	Yes	#	Yes	Yes	1. No resource concerns identified.	1. Renew ten year grazing lease with current terms and conditions
Spring Canyon #10527 Custodial	Yes	NA	NA	Yes	Yes	1. No resource concerns identified.	1. Renew ten year grazing lease with current terms and conditions

Allotment Name Number Category	Are Healthy Rangelands Standards Being Met?					Primary Resource Concerns	ID Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-diversity		
Stone Creek #10498 Improve	Yes	No	No ¹	Yes	Yes	<p>1. Riparian health on some streams is not meeting the Standard due to over-widened channels, loss of herbaceous and woody vegetation, bank disturbances, juniper encroachment and/or excessive sediment.</p> <p>2. Increased forest density and susceptibility to insects/disease.</p> <p>3. Conifer encroachment into mountain mahogany and sagebrush/grassland habitat.</p> <p>4. Poor condition of several developed springs.</p> <p>5. Damage to the Left Fork stream enclosure fence from falling trees along the eastern, uphill, perimeter.</p>	<p>1. Revise grazing management and design projects to restore or improve riparian function in several pastures where streams/ wetlands are FAR↓ or NF.</p> <p>2. Analyze the use of mechanical treatments and/or prescribed fire to reduce fuel loading, improve forest health, and utilize timber resources.</p> <p>3. Analyze the use of mechanical treatments and/or prescribed fire to reduce conifers expanding into mountain mahogany and sagebrush/grasslands.</p> <p>4. Repair or reconstruct water developments in degraded condition.</p> <p>5. Analyze removing conifers within one tree lengths distance from the uphill perimeter of the Left Fork Stone Creek enclosure to reduce the incidence of trees falling on the enclosure fence.</p>
Stone Creek Isolated #10674 Custodial	Yes	NA	NA	Yes	No	<p>1. Loss of biodiversity because of crested wheatgrass seeding.</p>	<p>1. Recommend disposal of 40 acre tract of public land surrounded by private land with no public access.</p>
Stone Creek un-allotted Reach # 421	Yes	No	No ¹	Yes	No	<p>1. Riparian, water quality, and biodiversity standards not met on ¼ mile reach of Stone Creek. Land ownership ambiguity has resulted in annual heavy grazing use by private land owner.</p>	<p>1. Recommend disposal of 40 acre tract of public land surrounded by private land or, alternatively, fencing out BLM land to all livestock grazing because the RMP designated this tract as “unavailable. “</p>

Allotment Name Number Category	Are Healthy Rangelands Standards Being Met?					Primary Resource Concerns	ID Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-diversity		
Ruby Mountain Wilderness Study Area (WSA); Stream reaches #881 & upper portion of #880 (1 mile)	Yes	No	Yes	Yes	Yes	1. Stream reach #881-Big Dry Creek failed Riparian Standard due to: lateral stream movement, excessive sediment inputs, over-widened and braided channel. 2. Vehicle traffic in WSA.	1. Close Ladder Canyon to livestock trailing. 2. Sign closed areas of regular recreation vehicle use in WSA.
¹ The Montana Department of Environmental Quality (DEQ) has been given the responsibility for making water quality determinations and has completed its evaluation of 303(d)-listed streams. McHessor Creek and Stone Creek are on the Montana Department of Environmental Quality (DEQ) 303(d) list of impaired streams. # Tributary streams in the EBW are not on the 303(d) list, are not priority streams, and are not scheduled to be evaluated by the DEQ.							

Scope and Scale

The issue of scale must be kept in mind while evaluating each Standard. It is recognized that isolated sites within a landscape may not be meeting the standards; however, considering broader scope and scale, the area may be in proper functioning condition (PFC). No single indicator provides sufficient information to determine rangeland health. The various indicators are used in combination to provide information necessary to determine land health.

Standard # 1: Upland Health

All 14 grazing allotments are meeting the Upland Health Standard. Also, the uplands in the un-allotted public lands, including 5,300 acres of the Ruby Mountain Wilderness Study Area (WSA), are properly functioning and meeting the Standard.

Standard # 2: Riparian Health

Ten grazing allotments are meeting the Riparian Health Standard or do not contain riparian habitat. However, four others are **not** meeting the Standard.

The allotments and stream reaches which failed to meet the Standard are:

1. Garden Creek Isolated: stream reach #880-Big Dry Creek
2. McHessor Creek: stream reaches; # 400-Spring Creek, 425, 426, 440-Trout Creek and tributaries
3. Stone Creek: stream reaches; # 401-Spring Creek tributary, 412, 415, 448-Stone Creek tributaries
4. Middle Fork: stream reach # 408-Middle Fork of Stone Creek

The Riparian Health Standard was not met on reach # 881-Big Dry Creek-in the WSA, and reach # 421-Stone Creek-in a 40 acre un-allotted parcel bisected by the Stone Creek road.

The riparian areas that did not meet the standard were determined to be functional-at-risk (FAR) with either a static or downward trend or non-functional (NF). Riparian habitat that is FAR with an upward trend is considered to be meeting the riparian health standard because it is making progress toward PFC.

Generally, riparian areas that do not meet the standard have altered vegetative composition along the riparian zone and/or reduced bank stability due to impacts from livestock trailing and/or grazing. Heavy infestation of Rocky Mountain juniper into the riparian zone is a contributing factor to poor vegetative composition and bank erosion on reach #412 in the Stone Creek allotment.

Standard # 3: Water Quality

Two major streams within the EBW, Stone Creek and Spring Creek, are on the State DEQ's 303(d) list of water quality impaired streams. Tributary streams in the EBW are not on the 303(d) list, are not priority streams, and are not typically evaluated by the DEQ. The BLM does not make Beneficial Use Determinations; however, BLM's findings are shared with DEQ to assist the State in fulfilling their obligations under the Clean Water Act.

Stone Creek and Spring Creek flow through public land in two allotments and one un-allotted parcel in the watershed. These creeks are on the State Department of Environmental Quality's 303d list of impaired streams. Consequently, the following two allotments and un-allotted parcel are **not** meeting the water quality standard:

1. Stone Creek
2. McHesssor Creek
3. Stone Creek Un-allotted

Livestock impacts have been determined to be one of the contributing factors in not meeting the water quality standard in these allotments.

Standard # 4: Air Quality

All the allotments assessed within the watershed are meeting the Standard.

Standard # 5: Biodiversity

The Biodiversity Standard is **not** being met in one allotment and on the Stone Creek un-allotted parcel:

1. Stone Creek Isolated
2. Stone Creek un-allotted

Stone Creek Isolated is a 40 acre upland tract surrounded by thousands of acres of private land. There is no public access to this tract. In the past, ownership boundaries have been overlooked or miscalculated during farming activities on private fields resulting in approximately 50% of the public land being seeded into crested wheatgrass. This has resulted in the loss of native plant species, a shift in the dominant plant community and loss of wildlife habitat.

In the Stone Creek un-allotted parcel livestock grazing impacts on reach # 421 have resulted in poor riparian species composition and vigor, willow decadence, reduced woody species regeneration and loss of deep-rooted herbaceous species.

NEPA Documentation

Before any of the above stated recommendations can be implemented, NEPA documentation will be completed to analyze a reasonable range of alternatives to address resource concerns found during the Assessment. The Dillon Field Office will be working on the East Bench Watershed Environmental Assessment (MT-B050-2009-0002) during the winter and spring of 2009.

Implementation of new plans will begin in 2009, but due to budgetary and human resource constraints, complete implementation of these plans may take several years.

For more information, please review the East Bench Assessment Report or contact the Dillon Field Office (406) 683-8000. You may also access the Report on line at, http://www.blm.gov/mt/st/en/fo/dillon_field_office.html.

Authorized Officer's Determination

Based on my review of the Assessment Team's recommendations and other relevant data and information, I have determined that the following nine allotments within the East Bench Watershed **meet** the Standards for Rangeland (Land) Health and Guidelines for Grazing Management for BLM lands in Montana:

1. Belmont South
2. Big Sheep
3. Carter Creek
4. Hoffman Creek
5. Lark Isolated
6. McHessor Creek Isolated
7. North Fork AMP
8. Nyhart
9. Spring Canyon

I have determined that four allotments and Stone Creek un-allotted **do not meet** the Riparian Health Standard. Current livestock management is a significant causal factor in the land health standard **not being met** on each of the following allotments/parcels:

1. Garden Creek Isolated
2. McHessor Creek
3. Middle Fork
4. Stone Creek
5. Stone Creek un-allotted

I have also determined that three allotments did not meet the Water Quality Standard:

1. Stone Creek
1. McHessor Creek
2. Stone Creek Un-allotted

Also, I have determined that one allotment and the Stone Creek un-allotted **do not meet** the Biodiversity Standard:

1. Stone Creek Isolated
2. Stone Creek un-allotted

Pursuant to 43 CFR 4180.2(c), the Authorized Officer shall take appropriate action as soon as practicable but not later than the start of the next grazing year upon determining that existing grazing management practices or levels of grazing use on public lands are significant factors in failing to achieve the standards. Appropriate action means implementing actions that will result in significant progress toward fulfillment of the standards. Practices and activities subject to standards and guidelines include the development, modification, or revision of AMPs, establishment of terms and conditions of permits, leases and other grazing authorizations, and range improvement activities such as vegetation manipulation, fence construction and development of water.

Dillon Field Manager

Date