Clean Water Act Compliance Field Review - Grazing Activities – Curlew NG

Allotment Name: Curlew Allotment and Buist Allotment **Forest:** Curlew National Grassland **Date:** 8/17/2005

Reviewers: Jerald Tower (Ranger), Ken Timothy (Wildlife/Range), Walt Grows (Range), Lee Leffert (Hydrology), Brad Higginson (Hydrology), and John Lott (Soils)

Grazing System: _____

Unit(s) Reviewed:		**On Date(s):**	**Off Date(s)**
	West 13	4/20	5/20
	North Canyon Riparian Pasture	5/10	5/21
	North Canyon Riparian Exclosure	N/A	N/A
	South Hess Haws		
	Meadowbrook Holding Area		
	Lower Southwest Peterson-Lonigan Riparian Exclosure	N/A	N/A
	Southwest Peterson-Lonigan	8/7	8/23
	Drive by discussions on: Meadowbrook, Rock Creek Riparian Pasture		

6TH Level HUB: See Map

Stream Name(s) and Type(s): North Canyon – "F" stream; Gully in So. Hess Haws – "G" stream

Soils:

Calcic Haploxerolls	Calcixerollic Xerochrepts
Calcic Argixerolls	Sodic Xeric Haplocalcids
Calcic Pachic Halploxerolls	Typic Xeropsamments
Calcic Pachic Argixerolls	Cumulic Haploxerolls

Geology: Lacustrine, Sedimentary, and Volcanic **Community Types:** Crested Wheatgrass, ARTRV/AGSP, ARTRX/AGSP, Bulbous Bluegrass

Notes: Jerald Tower signed the Decision Notice and FONSI for the Curlew and Buist Allotments (AMP Update) in December 2004. The LRMP (Plan) for the Curlew NG was completed in 2002, but it is currently under litigation. The Curlew Allotment is grazed between 4/16 and 11/30. The Buist Allotment is grazed between 4/25 and 7/9 and also between 11/1 and 11/30. Standards and Guidelines from the DN are currently being implemented. Many actions have been implemented, but not all of the fencing or other mitigation has been completed yet.

West Unit 13. The unit looks very good with excellent residual vegetation. Utilization was estimated at 20%. The group discussed the need to identify key areas. Ken said that a key area would be difficult in this unit because utilization varies spatially depending upon the season of use. Livestock use the lower portion near the canal more in the fall (hanging lower to head home) and the upper portions more in the spring. Utilization maps show that utilization can be 51-60% in the small portion near the canal while majority of the unit receives less than 20% utilization. The unit alternates each year between spring and fall grazing.

Lee expressed some concern about grazing fall and spring back to back. The group agreed that utilization standards should provide adequate protection. The group also discussed the need to complete the AMP and modify the grazing agreements to incorporate the standards and guidelines from the DN into the AMP. Ken has been collecting extensive utilization data and the capacity should be firmed up within 3 to 5 years.

Trough in West 13.

Looking across unit from trough location.

North Canyon Riparian Pasture. The area was grazed by 458 head for 10 days. The fence work identified in the DN is not complete, but the unit was still managed as a riparian pasture and the standards from the DN were implemented this year. The group found excellent riparian stubble height and upland utilization within the pasture. The riparian area is improving. Riparian vegetation is similar to that found in the exclosure.

North Canyon Riparian Pasture – Looking Downstream.

North Canyon Exclosure – Vegetated side-slopes.

North Canyon Riparian Exclosure. This area was fenced off approximately 25 years ago by the BLM (later determined to be on the Grassland). This shape of the gully inside and outside of the exclosure is very similar. The slide-slopes of the gully area more vegetated inside of the exclosure. Walt discussed the value of placing a nested frequency inside of the exclosure.

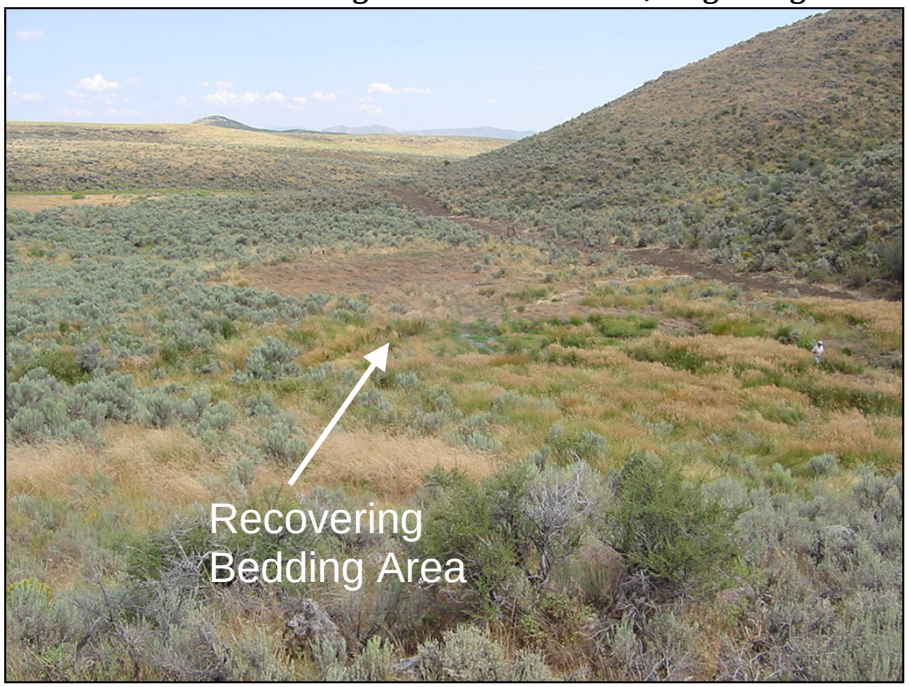
South Hess Haws. Ken constructed several check dams in an ephemeral/ intermittent gully in 1994. The check dams are stable and have prevented further downcutting of the gully. The gully bottom has revegetated very well. Ken has been monitoring one dam near the road that is experiencing minor erosion, but it doe not appear to be a major problem. Livestock are "pawing" at the steep side-slopes of the gully in several locations.

Meadowbrook Holding Area. The area downstream of the corral was previously used wean calves, but the permitees now wean the calves in the area upstream of the corrals. Riparian areas exist both upstream and downstream of the corral. Vegetation in the holding area exhibits high vigor (head-high in several locations).

Lower Southwest Peterson-Lonigan Riparian Exclosure. The exclosure was completed this year. The results are excellent. Disturbed areas (e.g. bedding areas) are recovering very well, channel width has decreased, and stream side vegetation has greatly improved in the area of the exclosure.

Prior to exclosure - 2004 grazing season.

Lower SW Peterson-Lonigan exclosure in 2005, no grazing.



Southwest Peterson-Lonigan. The uplands in this unit are meeting the utilization standards and appear to be in good condition. The unit includes the riparian area located west of Twin Springs Campground between Rock Springs and the campground. The group walked up stream to the first bedding area above the exclosure. The riparian area in this reach has experienced heavy utilization and bank trampling. At the time of this review, cattle have been in the unit for 10 days. Bank trampling is approaching 90% in several areas. Ken visited the stream a few days earlier and saw lighter use farther

up the canyon. The group discussed whether the stream is moving toward PFC. Many thought that the stream should be rated as non-functioning, but we did not complete a formal evaluation.

Jerald asked the group whether constructing the downstream exclosure transferred the use to this new location and what an acceptable rate of recovery is. Lee and Brad previously visited the area in 2004 and had similar riparian use concerns prior to exclosure construction. Lee and Brad felt that rather than transferring impacts, the exclosure did an excellent job at addressing a portion of the larger riparian use concern. Lee and Brad discussed how heavy bank trampling is limiting the rate of recovery in regards to stream channel stability and PFC rating. The group agreed that Ken has done a great job at moving the grassland toward DFCs and that this particular area is one of the few with remaining work to be done. The group agreed that an adaptive management approach is needed to move the reach toward DFC. Ken expressed the difficulties of management this unit: heat, canyon environment, limited shade and water, and the attraction of the riparian area.

Walt suggested that we try cool-season grazing with implementation of the riparian grazing standards from the DN. The group agreed to implement fall use next season. Walt will work on getting a cattle guard so that fall use won't interfere with hunter's use of the campground. Also, the group will implement multiple indicator monitoring on this reach to determine use and trend.

Ken visited the area again on the next day following this review (8/18/2005). He checked the entire riparian area and found that the majority of it looked good upstream from the lower bedding ground the team visited. Ken estimates that the majority of the stream (92%) is still in very good shape. The lower portion (including the bedding ground) and two bedding grounds at the upper reaches of the stream comprise roughly 8% of the entire reach. It rained that day and Ken did not observe any cattle in the riparian area; the cattle were scattered well away from the creek bottom.

Clean Water Act Compliance Field Review - Grazing Activities – Curlew NG

Use the Following Rating Guide and Definitions to Score Each Practice

Implemented	Score
Exceeds objective of practice	5
Meets objective of practice	4
Minor departure from practice	3
Major departure from practice	2
Gross neglect of practice	1

Effective	Score
Improved protection of soil and water over pre-project conditions	5
Adequate protection of soil and water	4
Minor and temporary impacts on soil and water	3
Major and temporary, or minor and prolonged impacts on soil and water	2
Major and prolonged impacts on soil and water	1

Term	Definition
Adequate	Small amount of material eroded; material does not reach ephemeral draws, intermittent and perennial streams, or wetlands
Minor	Erosion and delivery of material to ephemeral draws but not intermittent and perennial streams, or wetlands
Major	Erosion and subsequent delivery of sediment to ephemeral draws, intermittent and perennial streams, or wetlands
Temporary	Impacts expected to last one year or less or no more than one runoff season
Prolonged	Impacts expected to last more than one year or one runoff season

Curlew NG – Allotment Management Plan Update, Decision Notice and FONSI

Element	Standards and Guidelines	Applicable	Implemented	Effective	Notes
Utilization Standards	The *upland vegetation* utilization standards are (% dry weight): • 35-45% in fields identified as optimum nesting and brood-rearing habitat. • 35-45% in fields primarily made up of native understory species • 60% in fields with little sagebrush (<15% sagebrush canopy cover) and a predominant understory of crested wheatgrass. Once every 10 years these fields can be grazed up to 80% to maintain plant vigor. • 50-60% in fields with a predominant understory of bulbous bluegrass, regardless of sagebrush canopy cover. • 50-60% in all other pastures	Y	5	4	Good precipitation this year. All of the units visited had good residual upland vegetation.
Riparian Utilization Standards: South Fork Rock, Meadowbrook, Sheep, and Rock Creeks	• A minimum of 5 inches of residual riparian species (e.g. Carex spp) in the riparian wetland area at the end of the grazing period in order to have more than 6 inches at the end of the growing season. • Percent use by dry weight will depend on the timing of grazing: o 45% on riparian species grazed during spring (early season) o 35% on riparian species grazed during summer (mid-season) o 20% on riparian species grazed during fall (late season)	Y	4	4	The group visited Meadowbrook Holding Area and drove by the Rock Creek area.
Riparian Utilization Standards: All Other Riparian Areas	• A minimum of 4 inches of residual riparian species (e.g. Carex spp) in the riparian wetland area at the end of the grazing period in order to have more than 5-6 inches at the end of the growing season. • 35-45% use on riparian species and 40% on upland species in the riparian wetland areas (by dry weight).	**North Canyon**			
		Y	4	4	See Comment in Notes Section
		SW Petersen-Lonigan (Rock Springs to Twin Springs)			
		Y	3	2	Riparian stubble height and utilization exceeded, but a bank trampling indicator may be more appropriate for this unit.

Clean Water Act Compliance Field Review - Grazing Activities – Curlew NG

Curlew NG – Allotment Management Plan Update, Decision Notice and FONSI

Element	Standards and Guidelines	Applicable	Implemented	Effective	Notes
Riparian Pastures	**East Huffman Riparian Pasture – 215 acres:** Install 1.5 miles of new fence to create pasture	Y	Not Yet Implemented		Decision sign in Dec. 2004, but the fencing has not yet been completed.
Riparian Pastures	**North Canyon Riparian Pasture – 650 acres:** Install ¼ mile of new fence and remove 0.75 miles of fence to create	Y	4	4	Fence has not been completed yet, but the area was grazed as a riparian pasture in 2005.
Riparian and Upland Exclosures	**Lower Southwest Peterson-Lonigan Riparian Exclosure – 90 acres:** Install 0.25 miles of new fence from Twin Springs CG fence to the south private land fence to create exclosure. No water gaps will be installed.	Y	4	5	Completed this year. Bedding area is recovering well, stream width has narrowed, and streamside vegetation has increases.
Riparian and Upland Exclosures	**Upper Southwest Peterson-Lonigan Riparian Exclosure – 20 acres:** Install 1-1.5 miles of new fence north of Twin Springs CG on west side of stream to create exclosure. One water gap will be installed on the north end.	Y	Not Yet Implemented		Decision sign in Dec. 2004, but the fencing has not yet been completed.
Riparian and Upland Exclosures	**Northwest Peterson-Lonigan Riparian Exclosure – 75 acres:** Install 2 miles of new or replacement fence on west side of stream to create exclosure. Approximately 4 water gaps will be installed on the west side in the Northwest Peterson-Lonigan Pasture.	Y	Partially Implemented		Decision sign in Dec. 2004 – this exclosure in partially completed. No water gaps completed yet.
Other Structural Improvements	**Sheep Creek –** The existing pipeline will be extended (0.5-0.75 miles east and north to upland ridge area) and the water trough now located in the riparian area of Sheep Creek will be relocated to the upland ridge area.	N	Not Yet Implemented		Decision sign in Dec. 2004, but the fencing has not yet been completed.
Other Features	Adaptive management practices will be used in the implementation process.	Y	4	4	The DN to update the AMP included an adaptive management approach.
Monitoring - Soils	Monitor ground cover on established sites every 3-5 years to ensure cover does not fall below requirements necessary to protect soil from erosion exceeding soil loss tolerance and maintain watershed stability over 85% of each field.	Y	4	4	
Monitoring - Soils	Monitor soil disturbance conditions created and/or maintained by livestock grazing activities so that R4 Soil Quality Standards are complied with.	Y	4	4	
Monitoring – Livestock Grazing Management	Annually monitor livestock forage utilization in key areas. Where practical, coordinate key areas with ground cover monitoring sites. Identify all key areas by the end of the 2005 grazing.	Y	4	4	See notes above for discussion on key areas. Ken as been measuring utilization across pastures.
Monitoring – Livestock Grazing Management	Continue to treat and monitor noxious weed infestations as appropriate and directed in the Curlew LRMP				Did not discuss much.
Monitoring – Livestock Grazing Management	Survey historic and long-term trend study locations listed in Table 3.4 for current apparent trend.				

Clean Water Act Compliance Field Review - Grazing Activities – Curlew NG

Curlew National Grassland – Grassland Wide Guidance from the LRMP

Element	Standards and Guidelines	Applicable	Implemented	Effective	Notes
Soils	Do not allow resource developments and utilization of lands identified in the Soil Resource Inventory (SRI) as not capable of sustaining such impacts. (S)	Y	4	4	
Soils	Management activities are within the capability of the soils to sustain such activities as described in the SRI. (G)	Y	4	4	
Soils	Maintain fine organic matter that would protect the soil from excessive erosion and provide nutrient cycling. (G)	Y	4	4	
Soils	Detrimental soil disturbance caused by management practices should not exceed 15% of an activity area except when treating bulbous bluegrass. (G)	Y	5	4	
Soils	In area where biological crusts are integral to meeting ground cover requirements, maintain or restore them by reducing impacts during the early spring. (G)	Y	4	4	
Water Quality	Within legal authorities, ensure that new or proposed management activities within the watersheds containing 303(d) listed waterbodies maintain or improve overall progress toward beneficial use attainment for pollutants which led to listing, and do not allow additions of these pollutants in quantities that result in unacceptable adverse effects. (S)	Y	4	4	The DN identified several riparian exclosures and pastures along with standards to be implemented.
Water Quality	Work with the State of Idaho's 2-yr cycle to determine if the 303(d) waterbodies are correctly listed or have been restored adequately to provide designated beneficial uses. (G)	N			
Water Quality	New projects within watersheds containing 303(d) listed waterbodies should be supported by the appropriate scale of analysis and collaboration with the appropriate Federal, State, Tribal, and local agencies, and organizations and individuals (G)	Y	4	4	The DN identified several riparian exclosures and pastures along with standards to be implemented.
Water Quality	New project proposals analyzed under the NEPA should consider the 11 questions outlined in the Idaho Nonpoint Source Management Plan to achieve Federal consistency with the Idaho Nonpoint Source Management Plan and the CWA as implemented by the State. (G)	N			
Fisheries, Water, & Riparian Resources	Streams identified as being riparian Properly Functioning Condition (PFC) will be maintained in that condition. (S)	Y	4	4	
Fisheries, Water, & Riparian Resources	When applying herbicides aerially, maintain a 100 foot buffer on all streams. (G)	N			
Wildlife – Riparian Habitats	Surveys for the presence of amphibians should be completed prior to development of springs, riparian areas, and wetland complexes. Developments should maintain suitability for use by amphibians. (G)	N			
Livestock Management	Implement the riparian grazing management protocol through the AOI and updated AMPs. (S)	Y	4	3	Overall effective. Some departure in the Twin Springs area.

Clean Water Act Compliance Field Review - Grazing Activities – Curlew NG

Curlew National Grassland – Grassland Wide Guidance from the LRMP

Element	Standards and Guidelines	Applicable	Implemented	Effective	Notes
Livestock Management	Apply utilization levels, as shown in the direction for Prescription Area 6.5. (S): Apply livestock utilization levels, as measured by key area concept, unless determined otherwise through the ID team process. Average percent utilization of upland herbaceous vegetation across the Grassland will be 50% by dry weight (dw) each year. Allowable use levels in individual pastures, however, will be determined in the Allotment Planning Process and Annual Operating meetings. (S) In pastures dominated by crested wheatgrass, higher use levels (>50% by dw) may be prescribed to maintain overall plant health & Vigor. Use levels may be lower (30-45% by dw) in pastures dominated by native vegetation and in areas of 16-25% sagebrush canopy cover to leave adequate residual vegetation for hiding cover. These levels would be determined using an interdisciplinary, adaptive management process and will likely change from year to year. (G).	Y			See BMP items from the DN.
Livestock Management	Allow no livestock grazing before seed set of the second growing season after natural fires and rangeland planting or seeding. If monitoring shows that this is not adequate to meet resource needs, defer livestock grazing as necessary. (S)	N			
Livestock Management	Ramps should be installed on all stock watering tanks to allow small animal entrance and escape. (G)	Y			Although the trough was empty at the time, Walt identified that an escape ramp should be added all troughs. Ken said that it is mostly birds that become stuck in the trough not mammals. He adds a wood 2x6 or 2x10 to the troughs so that birds can dry off on the floating board and escape.
Livestock Management	When constructing livestock water developments, fence springs from livestock and return overflow to the original channel. Exclosures are design to maintain the vegetation community and hydrologic function of the spring (G)	Y	4	4	

Clean Water Act Compliance Field Review - Grazing Activities – Curlew NG

Curlew National Grassland – Grassland Wide Guidance from the LRMP

Element	Standards and Guidelines	Applicable	Implemented	Effective	Notes
RWA[1] – Livestock Management	Riparian utilization levels will be established at the site-specific level based on the PFC status of the stream using approved protocols in an interdisciplinary team process. The protocol will set stubble heights, percent utilization limits, bank disturbance, soil disturbance, and woody species utilization limits depending upon the stream condition and channel type. (S)	Y	4	4	Completed in the DN, FONSI, and EA for the AMP update.
RWA – Livestock Management	New livestock water facilities corrals, and holding pastures will be place outside of RWAs. (S) When corrals are reconstructed or replaced, they will be relocated outside of the RWA. (S)	Y	3	3	The Meadowbrook corral is outside of the RWA, but the weaning pasture includes RWA. Modifications have been made to reduce impacts and the pasture looked good on this review.
RWA – Livestock Management	Developed seeps & springs will have excess water returned to the drainage channel and the source will be fenced to exclude livestock. Exclosures are designed to maintain the vegetation community and hydrologic function of the spring. (S)	Y	4	4	
RWA – Livestock Management	Modify grazing practices as necessary to comply with Idaho water quality standards and CWA requirements including TMDLs. (S)	Y	4	4	Exclosures and riparian pastures have been effectively used on the allotments. The review resulted in adaptive management changes to improve riparian conditions in SW Petersen Lonigan.
RWA – Livestock Management	Grazing should not be allowed within riparian corridor fences unless it is needed to maintain plant vigor. Before allowing livestock grazing, a site-specific evaluation must be conducted and a determination made by a journey-level hydrologist or biologist that entry will not compromise RWA goals or reduce water quality below that needed to comply with state water quality requirements and sustain beneficial uses. Fences can be removed when the streams reach PFC. These reaches will then be included in a riparian pasture and grazed as determined by the protocol developed. (G) Adjust grazing practices that do not meet RWA goals.	Y	4	4	
RWA – Livestock Management	When constructing corridor fences, provide gaps in the fence to allow access to water. If necessary, harden water gaps to reduce sediment. (G)	Y	4	4	Many are yet to be implemented as the decision was signed in Dec. 2004.

[1] The default RWA zone widths for waterbodies on the Curlew NG, (unless defined otherwise by a hydrologist and/or biologist):

Stream Type	Width on Either Side of Channel (feet)
Fish-Bearing Stream Reaches	150
Perennial Non-Fish Bearing Reaches	75
Reservoirs, Ponds, & Wetlands > 1 acre	150
Intermittent (flows 50% of time) Channels and Wetlands < 1 acre	75

Clean Water Act Compliance Field Review - Grazing Activities – Curlew NG

Curlew National Grassland – Grassland Wide Guidance from the LRMP

Element	Standards and Guidelines	Applicable	Implemented	Effective	Notes
Prescription 6.5 – Rangeland Vegetation and Upland Bird Habitat Management	Fish/Water/Riparian: Prioritize streams that are "at risk" and that have the potential for restoration.				

R1/R4 FSH 2509.22, Chapter10 - Soil and Water Conservation Practices

Practice	Objective and Implementation	Applicable	Implemented	Effective	Notes
17.01 – Range Analysis, Allotment Management Plan, Grazing Permit System, and Permittee Operating Plan	To maintain and protect soil and water resources through sustained forage production and managed multiple use of range forage. Implementation: • Allotment is NEPA sufficient (if yes, give date) and AMP is sufficient (if yes, give date) • Preparation and approval of AMP • Revise AMP as needed • AOI prepared or revised (as needed) annually to adjust for current allotment conditions and trends and to incorporate special instructions • Permittee carries out the plan • Corrective action is taken if permitee does not comply with permit conditions designed to protect soil and water resources.	Y	4	4	Fresh LRMP and DN/FONSI for AMP update.
17.02 – Controlling Livestock Numbers and Season of Use	To maintain and protect soil and water resources through management of livestock numbers and season of use. Implementation: • Proper stocking rates and season of use specified in the grazing permit. • Annual field checks are made to identify needed adjustments: range readiness evaluations, livestock counts, forage & browse utilization, and periodic assessments of rangelands (soil and veg. trends) • Permit is modified, cancelled, or suspended if needed.	Y	4	4	

Clean Water Act Compliance Field Review - Grazing Activities – Curlew NG

R1/R4 FSH 2509.22, Chapter10 - Soil and Water Conservation Practices

Practice	Objective and Implementation	Applicable	Implemented	Effective	Notes
17.03 – Controlling Livestock Distribution	To maintain and protect soil and water resources, including riparian areas though controlling livestock distribution. Implementation: Proper techniques are used to reduce the impact on sensitive or naturally overused areas. Techniques may include: • Fence construction and use of seasonal or pasture system management • Water developments in areas that receive little use and closures of water developments when proper use is achieved. • Other Range improvements. • Riding & herding to shift livestock locations • Placing salt or supplements away from water in forage areas with light grazing use to attract livestock • Moving livestock when prescribed utilization levels are reached. • Goats and sheep – open herding, limited trailing, and use of new bed grounds nightly. Direction is incorporated into the AMP and AOI. The AOI reflects current allotment conditions and vegetative trends.	Y	4	3	Very good overall, but some departure as discussed above in SW Petersen-Lonigan riparian area.
17.04 – Rangeland Improvements	To maintain and protect soil and water resources the use of rangeland improvements. Implementation: Improvements are recognized in the allotment planning process. Improvements are used to improve management and restore or improve forage quality, quantity, or availability. Improvements may include: • Rest and/or deferment through rotation grazing, fencing, or lighter grazing use by changing the grazing season, kind, class, or permitted number of livestock. • Stream stabilization projects • Reseeding, fertilization, and/or other non-structural improvements • Water developments • ID teams provide consultation on improvements and they are constructed in manner that protects surface and ground water quality	Y	4	3	Very good overall, but some departure as discussed above in SW Petersen-Lonigan riparian area.

R4 Soil Management Handbook, FSH 2509.18 – Chapter 2 – Soil Quality Monitoring

Practice	Objective and Implementation	Applicable	Implemented	Effective	Notes

Clean Water Act Compliance Field Review - Grazing Activities – Curlew NG

R4 Soil Management Handbook, FSH 2509.18 – Chapter 2 – Soil Quality Monitoring

Practice	Objective and Implementation	Applicable	Implemented	Effective	Notes
Detrimental Soil Disturbance[2]	No more than 15% of an activity area should have detrimentally disturbed soil after the completion of all management activities.	Y	5	4	
Effective Ground Cover	The minimum effective ground cover, following the cessation of disturbance in an activity area, should be sufficient to prevent detrimental erosion. Detrimental erosion includes erosion rates that cause long-term productivity losses from an activity area or soil losses that are beyond those acceptable for the activity area. Minimum amounts of ground cover necessary to protect a soil from erosion are a function of soil properties, slope gradient and length, and erosivity (precipitation factor).	Y	4	4	

[2] Discuss the proper scale of the activity area (e.g. allotment, pasture, riparian areas ….). Activity Area is define in the handbooks as "an area impacted by a land management activity, excluding specified transportation facilities, dedicated trails, and mining excavations and dumps. Activity areas include such areas as: harvest units within timber sale areas and prescribed burn areas. Riparian and other environmentally sensitive areas may be monitored and evaluated as individual activity areas within larger management areas. It is recommended to describe the Activity Area for soil resources within planning and project implementation documents."