Chapter 3 - LCGMA Rangeland Health Determinations

Documents in this Chapter show specific results of the Rangeland Health Standards and Guides assessment for each pasture of LCGMA and determine whether Rangeland Health Standards 1-5 were met. Justifications and rationales for each determination are given. Rangeland health determinations were made on the basis of:

- Upland trend plot data analyses (Standards 1, 3)
- *Interpreting Indicators of Rangeland Health* (USDI, BLM Tech. Ref. 1734-6, 2000) field worksheets (Standards 1, 3, 5)
- Proper Functioning Condition ratings for riparian/wetland areas (*Process for Assessing Proper Functioning Condition*, BLM Tech. Ref. 1737-9, 1993) (Standards 2, 4, 5)
- Determinations for Rangeland Health Standard 5 were also based on wildlife habitat criteria from the SEORMP, Appendix F.
- Site and landscape photographs
- Professional judgment

Determinations for Rangeland Health Standard 4 (Water Quality) were based on:

1. Waterbody status, whether the stream is on the State 303(d) list (ODEQ)
2. Limitations on Beneficial Uses identified for the stream's river basin
3. Existing water quality data
4. Existing supporting data, such as range monitoring data, soil surveys, slope steepness, and aerial photography
5. Assessments for Rangeland Health Standards 1 (Watershed Function –Uplands), Standard 3 (Watershed Function –Riparian), and Standard 3 (Ecological Processes)
6. Drainage patterns
7. Land ownership within watersheds

Determinations for all pastures were authorized by the Jordan Resource Area Manager.

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : ANDERSON 11306

Pasture : BULL FLAT **Field Writeup Label(s) :** ABF1, ABF2

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - W*atershed function, uplands*	**Standard 2 -** W*atershed function, riparian*	**Standard 3 -** *Ecological processes*	**Standard 4 -** *Water Quality*	**Standard 5 -** N*ative, T&E, or locally important species*
Meets	NA	Meets	Meets	Meets - Terrestrial

B. Supporting Information

STANDARD 1 - W*atershed function, uplands*
Seventeen rangeland health indicators were assessed at two locations in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. One site had five indicators with a slight departure from the reference site, but overall, the pasture's soil, hydrologic, and biotic characteristics were comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - W*atershed function, riparian*
Not Applicable. This pasture does not contain riparian/wetland areas.

STANDARD 3 - E*cological processes*
Plant composition and cover in most of this pasture is dominated by Wyoming big sagebrush, bluebunch wheatgrass and, to a lesser extent, Idaho fescue, with Sandberg bluegrass, various forbs (phlox, hawksbeard, fleabane, buckwheat, and biscuit root) and biological crusts occupying the rest of the vegetative cover. Cheatgrass, other annuals, and noxious weeds are absent or in trace amounts. Litter is 6-15% cover as expected for the site. Plant diversity, composition, (31-75% native grasses; 6-15% native forbs; 6-50% native shrubs) and cover are as expected for the vast majority of this pasture which provide for appropriate ecological processes as well as habitat for diverse animal populations.

STANDARD 4 - W*ater quality*
This pasture does not contain stream channels with perennial water nor riparian/wetland areas. There are no limiting physical or biological factors in Standards 1-3 for this pasture that may affect water resources on-site or off-site.

STANDARD 5 - N*ative, T&E, or locally important species*
Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about terrestrial wildlife habitat health have been made:

Native sagebrush rangelands
SHRUB COVER – Habitats observed meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.

HERBACEOUS COVER - Most habitats observed meet the desired herbaceous understory conditions for native rangeland (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions).

HABITAT CONNECTIVITY - There are no Shrub Class 1 or 2 (grassland) habitats of significant size within this pasture. The Geographic Management Area this pasture lies within exhibits a high level of connectivity and very low overall overstory fragmentation.

TERRESTRIAL SOURCE HABITATS - Most of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : ANDERSON 1401
Pasture : NORTH **Field Writeup Label(s) :** AN1, AN2

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *Watershed function, uplands*	**Standard 2 -** *Watershed function, riparian*	**Standard 3 -** *Ecological processes*	**Standard 4 -** *Water Quality*	**Standard 5 -** *Native, T&E, or locally important species*
Meets	**NA**	Meets	Meets	Meets - Terrestrial

B. Supporting Narratives

STANDARD 1 - *watershed function, uplands*
Seventeen rangeland health indicators were assessed at two locations in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. All indicators at both sites were what would be expected for the area relative to the ecological reference area and/or the ecological site description. Overall the pasture had soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian*
Not Applicable. This pasture does not contain riparian/wetland areas.

STANDARD 3 - *ecological processes*
Plant composition and cover in most of this pasture are dominated by Wyoming big sagebrush, bluebunch wheatgrass and, to a lesser extent, Idaho fescue with Sandberg bluegrass, various forbs (phlox, hawksbeard, fleabane, buckwheat, lupine, and aster) and biological crusts occupying the rest of the vegetative cover. Reference quality sites are found in this pasture. Cheatgrass, other annuals, and noxious weeds are absent or occur in trace amounts. Litter is 6-17% cover as expected for the site. Plant diversity, composition, (50-75% native grasses; 10-15% native forbs; 4-35% native shrubs) and cover are more than expected for this pasture, providing for appropriate ecological processes as well as habitat for diverse animal populations.

STANDARD 4 - *water quality*
This pasture does not contain stream channels with perennial water nor riparian/wetland areas. There are no limiting physical or biological factors in Standards 1-3 for this pasture that may affect water resources on-site or off-site.

STANDARD 5 - *native, T&E, or locally important species*
Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about terrestrial wildlife habitat health have been made:

Native sagebrush rangelands
SHRUB COVER – Habitats observed meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.

HERBACEOUS COVER - Most habitats observed meet the desired herbaceous understory conditions for native rangeland (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions).

HABITAT CONNECTIVITY - Although there is evidence of an old 1,000 – 2,000 acre burn in North Pasture (date undetermined), it does not dominate the overall habitat aspect. Due to the overall degree of sagebrush community connectivity within the Geographic Management Area, Class 1 & 2 (grassland) conditions do not contribute towards landscape level habitat fragmentation problems for wildlife.

TERRESTRIAL SOURCE HABITATS - Most of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : ANDERSON 1401
Pasture : SPRING **Field Writeup Label(s) :** AS1, AS2

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - W*atershed function, uplands*	**Standard 2 - W***atershed function, riparian*	**Standard 3 -** E*cological processes*	**Standard 4 -** *Water Quality*	**Standard 5 -** *Native, T&E, or locally important species*
Meets	NA	Meets	Meets	Meets - Terrestrial

B. Supporting Narratives

STANDARD 1 - *Watershed function, uplands*
Seventeen rangeland health indicators were assessed at two locations in this pasture for upland watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. All indicators at one site were what would be expected for the area as compared to the ecological reference area and/or the ecological site description. The second site contained three indicators with a slightly higher degree of departure from the reference site. Overall the pasture contained soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - W*atershed function, riparian*
Not Applicable. This pasture does not contain riparian/wetland areas.

STANDARD 3 -E*cological processes*
Plant composition and cover in most of this pasture are dominated by Wyoming big sagebrush and bluebunch wheatgrass, with Sandberg bluegrass, various forbs (phlox, hawksbeard, fleabane, buckwheat, penstemon, and biscuit root) and biological crusts occupying the rest of the vegetative cover. Noxious weeds are absent in this pasture, but trace amounts of cheatgrass exist in drainage and rocky scab areas. Litter was 6-15% cover as expected for the site. About ¾ of the pasture is late seral to PNC sagebrush rangeland. However, a small area in the southeast portion of the pasture is definitely different than the rest of the pasture. There is an obvious difference in soils (color is different, texture, amount of gravel, etc.). In addition, the perennial grass cover is dominated by Sandberg bluegrass and some bottlebrush squirreltail with bluebunch wheatgrass lacking. Litter and biological crust cover is the same as the reference quality sites of the pasture. Water location does not seem to be congregating cattle in this southeast area as there are three other good reservoirs in the reference quality sites of the pasture. All indications are that the soils and drougthy nature of this site have resulted in lack of bluebunch wheatgrass production. Possibly, historical grazing reduced the bluebunch wheatgrass, and the site is slow to recover. We have no indication that current grazing would be

a factor in the lack of bluebunch wheatgrass on this southeast area since bluebunch wheatgrass is so plentiful elsewhere in the pasture. Overall, plant diversity, composition, (31-50% native grasses; 10-15% native forbs; 16-50% native shrubs) and cover is at least as expected for this pasture (with the exception of the southeast area mentioned above) which provides for ecological processes as well as habitat for diverse animal populations.

STANDARD 4 - W*ater Quality*
This pasture does not contain stream channels with perennial water nor riparian/wetland areas. There are no limiting physical or biological factors in Standards 1-3 for this pasture that may affect water resources on-site or off-site, therefore this pasture meets Standard 4.

STANDARD 5 - N*ative, T&E, or locally important species*
Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about wildlife habitat health have been made:

Native sagebrush rangelands
SHRUB COVER – Habitats observed meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.

HERBACEOUS COVER - Most habitats observed meet the desired herbaceous understory conditions for native rangeland (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions).

HABITAT CONNECTIVITY - There are no Class 1/2 (grassland) habitats of significant size within this pasture. The Geographic Management Area this pasture lies within exhibits a high level of connectivity and very low overall overstory fragmentation.

TERRESTRIAL SOURCE HABITATS - Most of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

Range Health Interdisciplinary Team Members – Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA standards of rangeland health determinations

Resource Area : JORDAN **Allotment name/number** : CAMPBELL 11306

Pasture : HORSE HILL **Field Writeup Label(s) :** CHH1 through CHH5

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2 -** *watershed function, riparian*	**Standard 3 -** *ecological processes*	**Standard 4 -** *water quality*	**Standard 5 -** *native, T&E, or locally important species*
Meets	Does Not Meet*	Meets	Does Not Meet*	Meets -Terrestrial Does Not Meet*-Riparian

B. Supporting Narratives

STANDARD 1 - *watershed function, uplands*
Seventeen rangeland health indicators were assessed at five locations in this pasture for upland watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. All indicators at four sites were what would be expected for the area as compared to the ecological reference area and/or the ecological site description. The remaining site contained three indicators with a higher degree of departure from the reference site. Overall the pasture contained soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian*
Horse Hill Pasture does not meet this standard based on a Functioning-at-Risk/No Trend Apparent (FARN) rating for 7.1 miles of Big Antelope Creek and 8 springs with FARN or Nonfunctioning ratings. The basis for the Big Antelope Creek rating was the erosion of channel banks and scour areas exacerbated by low flows and late-season livestock utilization and trailing. Springs had excessive hydrologic heaving (hummocking) or devegetated areas caused by hoof action.

STANDARD 3 - *ecological processes*
Plant composition and cover in most of this pasture is dominated by low sagebrush, Wyoming big sagebrush, bluebunch wheatgrass and Idaho fescue, with Sandberg bluegrass, various forbs (phlox, hawksbeard, fleabane, buckwheat, lupine, milkvetch, microseris and biscuit root) and biological crusts occupying the rest of the vegetative cover. Cheatgrass, other annuals, and noxious weeds are absent or occur in trace amounts in the pasture. Litter is mostly 6-15% cover as expected with one site having 26% cover. Biological crusts were around the 3-6% cover area

for most of the pasture. Plant diversity, composition (15-70% native grasses; 1-12% native forbs; 25-85% native shrubs) and cover are as expected for this pasture, providing for appropriate ecological processes as well as habitat for diverse animal populations. Reference quality sites for both low sage and Wyoming sage types are found in this pasture.

STANDARD 4 - *water quality*
Horse Hill pasture contains numerous intermittently flowing interrupted stream systems with many of the drainage segments going dry each year by July except for the numerous springs, perennial potholes scoured out of the alluvium in the streambed and wet areas were water resurfaces from the alluvium. Numerous channels in Horse Hill pasture are incised and contain streambanks that are mostly void of vegetation, with silty to large boulder substrates and discontinuous sedge/rush mats that are dissected throughout many of the reach. There are no limiting physical or biological factors in Standards 1or 3 for this pasture that may affect water resources on-site or off-site. However, many of the riparian areas assessed in this pasture for physical stream channel and floodplain properties were rated as Functioning-at-Risk and contribute to the impairment of water quality in the pasture. The spring sources, scour pools, wet areas, and riparian vegetation in this pasture are well utilized by livestock and lack the proper physical and biological characteristics to properly function and aid in the maintenance for water quality. Therefore this pasture is not meeting Standard 4.

STANDARD 5 - *native, T&E, or locally important species*

TERRESTRIAL SPECIES – Meets standards

Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about wildlife habitat health have been made:

Native sagebrush rangelands
SHRUB COVER – Habitats observed <u>meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland</u>. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.

Poor structural habitat quality was observed in certain isolated tall sage patches found within low sage types. In these particular instances, umbrella-form shrubs with heavily grazed understories (per BLM utilization definitions) were present due to livestock grazing use.

HERBACEOUS COVER - Most habitats observed <u>meet the desired herbaceous understory conditions for native rangeland</u> (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions).

HABITAT CONNECTIVITY - There are no Class 1 or 2 <u>(grassland)</u> habitats of significant size within this pasture. The Geographic Management Area this pasture lies within exhibits a high level of connectivity and very low overall overstory fragmentation

TERRESTRIAL SOURCE HABITATS - Most of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Riparian plant composition and structure
Some of the riparian conditions observed meet the desired forage, cover, and structure needs of terrestrial wildlife. The locations, types, and amounts of habitat adversely affected by livestock grazing use warrant a change in grazing use management. Refer to Standard 2 narrative above.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

RIPARIAN SPECIES – Does Not Meet Standard*s*

Based on assessments for Standard 2 (*watershed function, riparian)* the riparian conditions observed on 7.1 stream miles and 8 spring areas were not sufficient to dissipate stream energy, reduce erosion, store water for later release, or provide rearing and foraging areas for fish, amphibians, and invertebrates. These habitats were adversely affected by livestock grazing that reduced plant cover and compacted wet soils.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : CAMPBELL 11306
Pasture : PEACOCK **Field Writeup Label(s) :** CPC1 through CPC4

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2 -** *watershed function, riparian*	**Standard 3 -** *ecological processes*	**Standard 4 -** *water quality*	**Standard 5 -** *native, T&E, or locally important species*
Meets	NA	Meets	Meets	Meets -Terrestrial

B. Supporting Narratives

STANDARD 1 - *watershed function, uplands:*
Seventeen rangeland health indicators were assessed at four locations in this pasture for upland watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. All indicators at one site were what would be expected for the area as compared to the ecological reference area and/or the ecological site description. The second site contained one indicator, the third site contained three indicators, and the fourth site contained two indicators with a slightly higher degree of departure from the reference site. Overall the pasture contained soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian*
Not Applicable. This pasture does not contain riparian/wetland areas.

STANDARD 3 - *ecological processes*
Plant composition and cover in most of this pasture is dominated by Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail, Sandberg bluegrass, with various forbs (phlox, hawksbeard, fleabane, buckwheat, lupine, milkvetch, microserus and biscuit root) and biological crusts occupying the rest of the vegetative cover. Cheatgrass, other annuals, and noxious weeds are absent or in trace amounts in the pasture. However, we did have about 1% cheatgrass and pepperweed at one writeup area. Litter is 6-15% cover for the pasture. Most of the pasture has about 6-15% biological crust cover, however, one writeup area was in the 1-5% cover range. The site description for the pasture indicates a very dry site with bud sage, shadscale, spiny hopsage, .Indian ricegrass, Sandberg bluegrass and bottlebrush squirreltail. However, most of the pasture has Wyoming big sagebrush cover which is dense, reducing herbaceous cover. Overall, plant diversity, composition, (16-50% native grasses; 1-15% native forbs; 16-50% native shrubs) and cover is adequate for this pasture which provides for ecological processes as

well as habitat for diverse animal populations. Therefore, Standard 3 is met.

STANDARD 4 - *water quality:*
This pasture does not contain stream channels with perennial water nor riparian/wetland areas. There are no limiting physical or biological factors in Standards 1-3 for this pasture that may affect water resources on-site or off-site.

STANDARD 5 - *native, T&E, or locally important species*
Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about terrestrial wildlife habitat health have been made:

> **Native sagebrush rangelands**
> SHRUB COVER – Habitats observed meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.
>
> HERBACEOUS COVER - Most habitats observed meet the desired herbaceous understory conditions for native rangeland (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions).
>
> HABITAT CONNECTIVITY - There are no Class 1 & 2 (grassland) habitats of significant size within this pasture. The Geographic Management Area this pasture lies within exhibits a high level of connectivity and very low overall overstory fragmentation.
>
> TERRESTRIAL SOURCE HABITATS - Most of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : CAMPBELL 11306

Pasture : SACRAMENTO HILL **Field Writeup Label(s) :**

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2** - *watershed function, riparian*	**Standard 3** - *ecological processes*	**Standard 4** - *water quality*	**Standard 5** - *native, T&E, or locally important species*
Meets	Meets	Meets	Meets	Meets - Terrestrial Meets - Riparian

B. Supporting Narratives - Standards of Rangeland Health

STANDARD 1 - *watershed function, uplands*
Seventeen rangeland health indicators were assessed at two locations in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. All indicators at one site were what would be expected for the area as compared to the ecological reference area and/or the ecological site description. The second site had two indicators with a slightly higher degree of departure from the reference site. Overall the pasture had soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian*
Sacramento Hill Pasture encompasses the lowest reach of Pole Creek and borders portions of Antelope Creek. In Pole Creek and upper Antelope Creek (rated PFC, or Meeting Standard 2), short-lived seasonal runoff limits the development of riparian plant communities, and meager revegetation occurs on banks and point bars. Although livestock utilization is heavy in some channel areas, the channel is well armored with rock and boulder and no excessive downcutting or headcutting is present.

The lowest 8 miles of Antelope Creek was rated PFC. This perennial reach traverses a narrow rhyolite canyon that is largely inaccessible to livestock, has extensive and diverse riparian vegetation, rocky substrates, and no evidence of excessive erosion. A segment above the canyon in a wider valley with more easily eroded sediments was rated Functioning-at-risk/Upward Trend based on the presence of fragile clay or ashy banks that were downcut in historic times. The

abundance of two willow species showing vigorous reproduction, along with a diverse sedge/rush community, indicates an Upward Trend.

STANDARD 3 - *ecological processes*
Standard 3 is met in Sacramento Hill Pasture. Plant composition and cover in most of this pasture is dominated by Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail and Sandberg bluegrass, with various forbs (phlox, fleabane, buckwheat, lupine, and hawksbeard) and biological crusts occupying the rest of the vegetative cover. Cheatgrass, other annuals, and noxious weeds are absent or in trace amounts in the pasture (one site had <1% cheatgrass and pepperweed). Litter is at 6-15% cover as expected for the site. Plant diversity, composition (31-50% native grasses; 1-5% native forbs; 31-50% native shrubs (Wyoming big sagebrush, horsebrush, spiny hopsage)) and cover are adequate for these sites and provide for ecological processes as well as habitat for diverse animal populations.

STANDARD 4 - *water quality*
This pasture does not contain stream channels with perennial water and has limited riparian/wetland areas. There are no limiting physical or biological factors in Standards 1-3 for this pasture that may affect water resources on-site or off-site.

STANDARD 5 - *native, T&E, or locally important species*

TERRESTRIAL SPECIES – Meets standards

Based on an assessment of plant composition and structure criteria cited in Appendix F of the SEORMP the following conclusions about terrestrial wildlife habitat health have been made:

Native sagebrush rangelands
SHRUB COVER – Habitats observed meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.

HERBACEOUS COVER - Most habitats observed meet the desired herbaceous understory conditions for native rangeland (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions).

HABITAT CONNECTIVITY - There are no Class 1 & 2 (grassland) habitats of significant size within this pasture. The Geographic Management Area this pasture lies within exhibits a high level of connectivity and very low overall overstory fragmentation

TERRESTRIAL SOURCE HABITATS - Most of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

RIPARIAN SPECIES –Meets Standards

Based on assessments for Standard 2, Sacramento Hill Pasture meets the criteria for Standard 5 for riparian species. Pole Creek and the intermittent reach of Antelope Creek provide passage for fish during runoff, and Antelope Creek, Reaches 1 & 2, provides good perennial habitat for four native fishes and probably amphibians.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : CAMPBELL 11306

Pasture : STARVATION BRUSH CONTROL **Field Writeup Label(s) :**

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2 -** *watershed function, riparian*	**Standard 3 -** *ecological processes*	**Standard 4 -** *water quality*	**Standard 5 -** *native, T&E, or locally important species*
Meets	Does Not Meet* (Field Creek)	Does Not Meet	Does Not Meet* (Field Creek)	Does Not Meet – Terrestrial Meets -- Riparian

B. Supporting Narratives

STANDARD 1 - *watershed function, uplands*
Seventeen rangeland health indicators were assessed at two locations in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. All indicators at one site were what would be expected for the area as compared to the ecological reference area and/or the ecological site description. The second site that represents approximately one-third of the pasture contained five indicators with a slightly to moderate higher degree of departure from the reference site. Overall the pasture contained soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian:*
Riparian areas are mostly the margins of Antelope Creek (5.4 mi) and are rated PFC, or Meeting Standard 2. Short-lived seasonal runoff limits the development of riparian plant communities, and meager revegetation occurs on banks and point bars. Although livestock utilization is heavy in some channel areas, the channel is well armored with rock and boulder and no excessive downcutting or headcutting is present.

Field Creek has a short reach (0.2 mi) in this pasture that serves as a water gap for livestock watering. Although this reach of Field Creek represents only a small proportion of the total riparian area for the pasture, the present altered physical and biological state of the watergap

consequently rates this reach as Functioning at Risk. Therefore, Starvation Brush Control overall was rated as Not Meeting Standard 2.

STANDARD 3 - *ecological processes*
Standard 3 is barely met in Starvation Brush Control. Plant composition and cover in most of this pasture is dominated by Wyoming big sagebrush, bluebunch wheatgrass, and Sandberg bluegrass, with various forbs (hawksbeard and phlox) and biological crusts occupying the rest of the vegetative cover. Cheatgrass, other annuals, and noxious weeds are absent or in trace amounts (one site had <1% cheatgrass). Litter is about 2-6% cover which is not as high as similar sites in other pastures. Plant diversity, composition (39-46% native grasses; 1-3% native forbs; 53-59% native shrubs) and cover are as expected for the northern two-thirds of the pasture. However, the southern ⅓ lacks diversity in the understory (bluebunch wheatgrass and forbs lacking).

STANDARD 4 - *water quality:*
Segments of Antelope Creek (5.4 mi.) and Field Creek (0.2 mi.) flow through Starvation Brush Control pasture. Both creeks are intermittently flowing interrupted stream systems that usually dry up each year by July. There are no limiting physical or biological factors in Standards 1-3 for this pasture that may affect water resources on-site or off-site except for the water gap in Field Creek. However, riparian areas assessed in Field Creek for physical stream channel and floodplain properties were rated as Functioning-at-Risk and contribute to the impairment of water quality in the pasture. The spring source, wet areas, and riparian vegetation of the watergap are well utilized by livestock and lack the proper physical and biological characteristics to properly function and aid in the maintenance for water quality. Therefore this pasture is not meeting Standard 4.

STANDARD 5 - *native, T&E, or locally important species*

TERRESTRIAL SPECIES – Does not meet standards

Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, Final Environmental Impact Statement, the following conclusions about terrestrial wildlife habitat health have been made:

> **Native sagebrush rangelands**
> SHRUB COVER – Habitats observed <u>meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland</u>. The amount and quality of shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.
>
> HERBACEOUS COVER - Most habitats observed <u>meet the desired herbaceous understory conditions for native rangeland</u> (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions). However, the southern ⅓ of the pasture near Lucky Seven Cow Camp is more consistent with early ecological conditions and <u>does not meet the desired herbaceous understory conditions for native rangeland.</u> Therefore, the pasture does not meet standards.

HABITAT CONNECTIVITY - There are no Class 1 or 2 (grassland) habitats of significant size within this pasture. The Geographic Management Area this pasture lies within exhibits a high level of connectivity and very low overall overstory fragmentation

TERRESTRIAL SOURCE HABITATS - Upland habitat observed in the northern 2/3 of this pasture conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

RIPARIAN SPECIES –Meets Standards

Antelope Creek provides passage for fish only during spring runoff periods. Not enough water is present naturally to furnish season-long habitat for aquatic species.

See Steer Canyon Seeding (Louse Canyon Allotment) and Horse Hill Pasture (Campbell Allotment) for assessments of riparian species in Field Creek.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : CAMPBELL 11306

Pasture : STARVATION SEEDING **Field Writeup Label(s) :**

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2 -** *watershed function, riparian*	**Standard 3 -** *ecological processes*	**Standard 4 -** *water quality*	**Standard 5 -** *native, T&E, or locally important species*
Meets	Meets	Does Not Meet	Meets	Does Not Meet – Terrestrial Meets -- Riparian

B. Supporting Narratives

STANDARD 1 - *watershed function, uplands:*
Seventeen rangeland health indicators were assessed at two locations in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. All indicators at one site were what would be expected for the area as compared to the ecological reference area and/or the ecological site description. The second site contained three indicators with a slightly higher degree of departure from the reference site. Overall the pasture contained soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian:*
Riparian areas consist of the margins of Antelope Creek (8.8 mi) and are rated Proper Functioning Condition, or Meeting Standard 2. Short-lived seasonal runoff limits the development of riparian plant communities, and meager revegetation occurs on banks and point bars. Although livestock utilization is heavy in some channel areas, the channel is well armored with rock and boulder and no excessive downcutting or headcutting is present.

STANDARD 3 - *ecological processes*
Plant composition and cover in most of this pasture is dominated by Wyoming big sagebrush, crested wheatgrass, and Sandberg bluegrass, with very little else occupying the rest of the vegetative cover. Cheatgrass, other annuals, and noxious weeds are absent or in trace amounts in the pasture. Litter is at 16-30% which was higher than most sites. Plant diversity and

composition (98% exotic grasses and some natives; trace forbs; 2% native shubs), is not as expected for these sites as the pasture is a crested wheatgrass seeding. Herbaceous diversity is especially lacking as crested wheatgrass and Sandberg bluegrass are nearly the only plants in the understory. Standard 3 is not being met as a diverse understory of native grass and forb species would be needed to provide the ecological processes typical for this site.

STANDARD 4 - *water quality:*
Antelope Creek in Starvation Seeding is an intermittently flowing, interrupted stream system that usually dries up each year by July. There are no limiting physical or biological factors in Standards 1-3 for this pasture that may affect water resources on-site or off-site, and therefore this pasture meets Standard 4.

STANDARD 5 - *native, T&E, or locally important species*

TERRESTRIAL SPECIES – Does Not Meets Standards

Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about terrestrial wildlife habitat health have been made:

Seeded sagebrush rangelands
SHRUB COVER – Habitats observed do not meet the minimum desired pasture level shrub cover conditions for seeded rangeland. The amount and quality of shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is not present. Little or no sagebrush recolonization has occurred within the Starvation Seeding since 1964 when 14,000 acres were planted to crested wheatgrass. About 10% of the pasture remains in a native, unseeded state with Class 3/4/5 (shrubland) overstory conditions.

HERBACEOUS COVER - Habitats observed do not meet the minimum desired herbaceous understory conditions for seeded rangeland (e.g. at least some native or introduced forb species)

HABITAT CONNECTIVITY – Although this seeding does not meet the minimum habitat criteria mentioned above, its habitat limitations for wildlife communities are fine scale and localized. Due to the overall degree of sagebrush community connectivity within the Geographic Management Area, Class 1 & 2 (grassland) conditions in this pasture do not contribute towards landscape level habitat fragmentation problems for wildlife.

TERRESTRIAL SOURCE HABITATS - Little or none of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

RIPARIAN SPECIES –Meets Standards

Based on assessments for Standard 2 (*watershed function, riparian)* the riparian condition on this reach of Antelope Creek (intermittent) was Proper Functioning Condition. Antelope Creek provides passage for fish during runoff only. Not enough water is present naturally to furnish season-long habitat for aquatic species.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : CAMPBELL 11306

Pasture : TWIN SPRINGS MIDDLE **Field Writeup Label(s) :**

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2 -** *watershed function, riparian*	**Standard 3 -** *ecological processes*	**Standard 4 -** *water quality*	**Standard 5 -** *native, T&E, or locally important species*
Meets	NA	Meets	NA	Meets-Terrestrial

B. Supporting Narratives

STANDARD 1 - *watershed function, uplands:*
Seventeen rangeland health indicators were assessed at one location in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. All indicators at the site were what would be expected for the area as compared to the ecological reference area and/or the ecological site description. Overall the pasture had soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian:*
Not Applicable. This pasture does not contain riparian/wetland areas. Reservoirs that contain year round or seasonal waters are not considered in the category of riparian/wetland areas unless the structures were specifically constructed for the enhancement of the resources present.

STANDARD 3 - *ecological processes*
Plant composition and cover in most of this pasture is dominated by Wyoming big sagebrush, bluebunch wheatgrass, Sandberg bluegrass, with various forbs (hawksbeard, buckwheat, biscuit root and phlox) and biological crusts occupying the rest of the vegetative cover. Cheatgrass, other annuals, and noxious weeds are absent or in trace amounts in the pasture. Litter is 6-15% cover for the pastures. Biological crust cover was 6-15% the pastures. The site description for the pasture indicates a very dry site with bud sage, shadscale, spiny hopsage .Indian ricegrass, Sandberg bluegrass and bottlebrush squirreltail. However, most of the pasture has Wyoming big sagebrush cover which is dense reducing herbaceous cover. Overall, plant diversity, composition, (31-60% native grasses; 1-7% native forbs; 16-33% native shrubs) and cover is adequate for these sites which provides for ecological processes as well as habitat for diverse

animal populations. Therefore, Standard 3 is met due to the adequate species diversity and cover.

STANDARD 4 - *water quality*:
This pasture does not contain stream channels with perennial water nor riparian/wetland areas. There are no limiting physical factors in Standards 1-3 for this pasture that affect water resources on-site or off-site.

STANDARD 5 - *native, T&E, or locally important species*
Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about terrestrial wildlife habitat health have been made:

> **Native sagebrush rangelands**
> SHRUB COVER – Habitats observed meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.
>
> HERBACEOUS COVER - Most habitats observed meet the desired herbaceous understory conditions for native rangeland (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions).
>
> HABITAT CONNECTIVITY - There are no Class 1 or 2 (grassland) habitats of significant size within this pasture. The Geographic Management Area this pasture lies within exhibits a high level of connectivity and very low overall overstory fragmentation.
>
> TERRESTRIAL SOURCE HABITATS - Most of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : Jordan **Allotment name/number** : CAMPBELL 11306

Pasture : TWIN SPRINGS NORTH **Field Writeup Label(s) :**

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2 -** *watershed function, riparian*	**Standard 3 -** *ecological processes*	**Standard 4 -** *water quality*	**Standard 5 -** *native, T&E, or locally important species*
Meets	Meets	Meets	Meets	Meets - Terrestrial Meets -Riparian

B. Supporting Narratives - Standards of Rangeland Health

STANDARD 1 - *watershed function, uplands:*
Seventeen rangeland health indicators were assessed at one location in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. All indicators at the site were what would be expected for the area as compared to the ecological reference area and/or the ecological site description. Overall the pasture contained soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian:*
Riparian areas in Twin Springs North are limited to Coyote Holes Reservoir, which provides fish and wildlife habitat as well as livestock water. The reservoir was rated Proper Functioning Condition based on diverse and abundant herbaceous vegetation and rocky armoring on bank areas.

STANDARD 3 - *ecological processes*
Plant composition and cover in most of this pasture is dominated by Wyoming big sagebrush, bluebunch wheatgrass, Sandberg bluegrass, with various forbs (hawksbeard, buckwheat, biscuit root and phlox) and biological crusts occupying the rest of the vegetative cover. Cheatgrass, other annuals, and noxious weeds are absent or in trace amounts in the pasture. Litter is 6-15% cover for the pastures. Biological crust cover was 6-15% the pastures. The site description for the pasture indicates a very dry site with bud sage, shadscale, spiny hopsage .Indian ricegrass, Sandberg bluegrass and Bottlebrush squirreltail. However, most of the pasture has Wyoming big sagebrush cover which is dense reducing herbaceous cover. Overall, plant diversity,

composition, (31-60% native grasses; 1-7% native forbs; 16-33% native shrubs) and cover is adequate for these sites which provides for ecological processes as well as habitat for diverse animal populations. Therefore, Standard 3 is met due to the adequate species diversity and cover.

STANDARD 4 - *water quality*:
This pasture does not contain stream channels with perennial water nor riparian/wetland areas except for Coyote Holes Reservoir. There are no limiting physical factors in Standards 1-3 for this pasture that affect water resources on-site or off-site.

STANDARD 5 - *native, T&E, or locally important species*

TERRESTRIAL SPECIES – Meets standards

Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about terrestrial wildlife habitat health have been made:

Native sagebrush rangelands
SHRUB COVER – Habitats observed meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.

HERBACEOUS COVER - Most habitats observed meet the desired herbaceous understory conditions for native rangeland (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions).

HABITAT CONNECTIVITY - There are no Class 1 or 2 (grassland) habitats of significant size within this pasture. The Geographic Management Area this pasture lies within exhibits a high level of connectivity and very low overall overstory fragmentation.

TERRESTRIAL SOURCE HABITATS - Most of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

RIPARIAN SPECIES –Meets standards

Coyote Holes Reservoir provides good habitat for a stocked rainbow trout fishery and is a breeding site for Pacific treefrogs and possibly other amphibians. Though livestock access the reservoir for water, the grazing season -of -use is during early spring every two years, which allows riparian regrowth and recovery.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : Jordan **Allotment name/number** : CAMPBELL 11306

Pasture : TWIN SPRINGS SOUTH **Field Writeup Label(s) :**

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2 -** *watershed function, riparian*	**Standard 3 -** *ecological processes*	**Standard 4 -** *water quality*	**Standard 5 -** *native, T&E, or locally important species*
Meets	NA	Meets	Meets	Meets - Terrestrial

B. Supporting Narratives

STANDARD 1 - *watershed function, uplands*
Seventeen rangeland health indicators were assessed at one location in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. All indicators at the site were what would be expected for the area as compared to the ecological reference area and/or the ecological site description. Overall the pasture had soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian*
Not Applicable. This pasture does not contain riparian/wetland areas. Reservoirs that contain year round or seasonal waters are not considered in the category of riparian/wetland areas unless the structures were specifically constructed for the enhancement of the resources present.

STANDARD 3 - *ecological processes*
Plant composition and cover in most of this pasture is dominated by Wyoming big sagebrush, bluebunch wheatgrass, Sandberg bluegrass, with various forbs (hawksbeard, buckwheat, biscuit root and phlox) and biological crusts occupying the rest of the vegetative cover. Cheatgrass, other annuals, and noxious weeds are absent or in trace amounts in the pasture. Litter is 6-15% cover for the pastures. Biological crust cover was 6-15% the pastures. The site description for the pasture indicates a very dry site with bud sage, shadscale, spiny hopsage .Indian ricegrass, Sandberg bluegrass and bottlebrush squirreltail. However, most of the pasture has Wyoming big sagebrush cover which is dense reducing herbaceous cover. Overall, plant diversity, composition, (31-60% native grasses; 1-7% native forbs; 16-33% native shrubs) and cover is

adequate for these sites which provides for ecological processes as well as habitat for diverse animal populations. Therefore, Standard 3 is met due to the adequate species diversity and cover.

STANDARD 4 - *water quality*
This pasture does not contain stream channels with perennial water nor riparian/wetland areas. There are no limiting physical factors in Standards 1-3 for this pasture that affect water resources on-site or off-site.

STANDARD 5 - *native, T&E, or locally important species*
Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about terrestrial wildlife habitat health have been made:

Native sagebrush rangelands
SHRUB COVER – Habitats observed meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.

HERBACEOUS COVER - Most habitats observed meet the desired herbaceous understory conditions for native rangeland (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions).

HABITAT CONNECTIVITY - There are no Class 1 or 2 (grassland) habitats of significant size within this pasture. The Geographic Management Area this pasture lies within exhibits a high level of connectivity and very low overall overstory fragmentation.

TERRESTRIAL SOURCE HABITATS - Most of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : CAMPBELL 11306
Pasture : LARRIBEAU **Field Writeup Label(s) :** CL1

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2 -** *watershed function, riparian*	**Standard 3 -** *ecological processes*	**Standard 4 -** *water quality*	**Standard 5 -** *native, T&E, or locally important species*
Meets	Meets	Meets	Meets	Meets - Terrestrial

B. Supporting Narratives

STANDARD 1 - *watershed function, uplands*
Seventeen rangeland health indicators were assessed at one location in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. All indicators were what would be expected for the area compared to the ecological reference area and/or the ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian*
This pasture contains a spring/wet meadow area adjacent to a perennial headwater reach (0.7 mile) of the West Little Owyhee River. The riparian/wetland area is dominated by sedges and rushes with a small number of willows, and is rated PFC, or Meeting Standard 2. Although livestock utilization is extensive in many areas along the channel, the channel is well armored with herbaceous cover and rock and shows no downcuts, headcuts, or lateral erosion.

STANDARD 3 - *ecological processes*
Plant composition and cover in most of this pasture is dominated by low sagebrush, Idaho fescue, Sandberg bluegrass and bottlebrush squirreltail, with numerous perennial forbs. Biological crusts are largely absent and would not be expected to be a large component of the biological community at this elevation (6400'). Cheatgrass, other annuals, and noxious weeds are absent or in trace amounts. Litter is 6-15% cover for the pasture. Overall, plant diversity, composition (31-60% native grasses; 1-7% native forbs; 16-33% native shrubs) and cover is adequate and provides for ecological processes as well as habitat for diverse animal populations. Therefore, Standard 3 is met in this pasture.

STANDARD 4 - *water quality*

The West Little Owyhee River flows intermittently in the upper portion of the pasture until the spring/wet meadow enters the channel. There are no limiting physical or biological factors in Standards 1-3 that may affect water resources on-site or off-site.

STANDARD 5 - *native, T&E, or locally important species*
Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about terrestrial wildlife habitat health have been made:

Native sagebrush rangelands
SHRUB COVER – Habitats observed meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.

HERBACEOUS COVER - Most habitats observed meet the desired herbaceous understory conditions for native rangeland (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions).

HABITAT CONNECTIVITY - There are no Class 1 or 2 (grassland) habitats of significant size within this pasture. The Geographic Management Area this pasture lies within exhibits a high level of connectivity and very low overall overstory fragmentation.

TERRESTRIAL SOURCE HABITATS - Most if not all of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

Range Health Interdisciplinary Team Members – Travis Fletcher, Brandon Knapton, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : LOUSE CANYON COMMUNITY

Pasture : DRUMMOND BASIN **Field Writeup Label(s) :**

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2 -** *watershed function, riparian*	**Standard 3 -** *ecological processes*	**Standard 4 -** *water quality*	**Standard 5 -** *native, T&E, or locally important species*
Meets	NA	Does Not Meet	NA	Does Not Meet - Terrestrial

B. Supporting Narratives

STANDARD 1 - *watershed function, uplands:*
Seventeen rangeland health indicators were assessed at two locations in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. All indicators at one site were what would be expected for the area as compared to the ecological reference area and/or the ecological site description. The second site that represents approximately one-third of the pasture had nine indicators with a slightly higher to moderate degree of departure from the reference site. Overall the pasture had soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian*
Not Applicable. Drummond Basin Pasture does not contain riparian/wetland areas. An intermittent reach of Pole Creek (0.4 mi) within this pasture was rated Non-riparian based on preponderance of upland plant species and lack of water.

STANDARD 3 - *ecological processes*
Plant composition and cover in most of this pasture is dominated by Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail and Sandberg bluegrass, with various forbs (hawksbeard, fleabane, buckwheat, biscuit root and milkvetch) and biological crusts occupying the rest of the vegetative cover. Cheatgrass, other annuals, and noxious weeds are absent or in trace amounts. Litter is about 6-30% cover which is what is expected for most of this pasture. Biological crusts cover is 6-15%. Plant diversity, composition (23-50% native grasses; 0-15% native forbs; 31-77% native shrubs) and cover is as expected for those sites in the northern ⅔ of the pasture which has reference quality sites. However, the southern ⅓ of the pasture lacks

diversity in the understory (bluebunch wheatgrass and forbs lacking) and has a definite soil change which corresponds with the OAESIS site map. Therefore, soils have an affect on the productivity of the southern ⅓ of the pasture as well as possible residual affects from historic livestock grazing. Because ⅓ of the pasture does not meet standards, Standard 3 is not met in this pasture.

STANDARD 4 - *water quality*
Drummond Basin Pasture does not have stream channels with perennial water nor riparian/wetland areas. There are no limiting physical factors in Standards 1-3 for this pasture that affect water on-site or off-site.

STANDARD 5 - *native, T&E, or locally important species*
Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about terrestrial wildlife habitat health have been made:

Native sagebrush rangelands
SHRUB COVER – Habitats observed meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present

HERBACEOUS COVER - Most habitats observed meet the desired herbaceous understory conditions for native rangeland (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions). However, herbaceous composition in the southern ⅓ of the pasture is more consistent with early ecological conditions and does not meet the desired herbaceous understory conditions for native rangeland; the pasture partially meets standards.

HABITAT CONNECTIVITY - There are no Class 1 or 2 (grassland) habitats of significant size within this pasture. The Geographic Management Area this pasture lies within exhibits a high level of connectivity and very low overall overstory fragmentation.

TERRESTRIAL SOURCE HABITATS - Most of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : LOUSE CANYON COMMUNITY

Pasture : LOUSE CANYON **Field Writeup Label(s) :**

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2 -** *watershed function, riparian*	**Standard 3 -** *ecological processes*	**Standard 4 -** *water quality*	**Standard 5 -** *native, T&E, or locally important species*
Meets	Does Not Meet*	Meets	Does Not Meet*	Meets-Terrestrial Does Not Meet *-Riparian

B. Supporting Narratives

STANDARD 1 - *watershed function, uplands*
Seventeen rangeland health indicators were assessed at four locations in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. All indicators at the sites were what would be expected for the area as compared to the ecological reference area and/or the ecological site description. Overall the pasture contained soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian*
Louse Canyon Pasture includes numerous riparian/wetland areas. Riparian conditions observed on portions of Pole Creek, Jack Creek, Deer Creek, Massey Canyon, and Dry Canyon, and 23 spring/meadow areas were not sufficient to dissipate stream energy, reduce erosion, or store water for later release. These habitats were adversely affected by livestock grazing, which reduced plant cover and compacted wet soils.

STANDARD 3 - *ecological processes*
Standard 3 was met in Louse Canyon Pasture, and reference quality sites for both low sage and Wyoming sage types were present. Plant composition and cover in most of the pasture are dominated by low sagebrush, Wyoming big sagebrush, bluebunch wheatgrass and Idaho fescue, with Sandberg bluegrass, various forbs (hawksbeard, fleabane, buckwheat, biscuit root, Hooker's balsamroot, penstemon, lupine, onion, milkvetch) and biological crusts also occurring. Cheatgrass, other annuals, and noxious weeds are absent or in trace amounts. Litter cover ranges

between 6-15%, with most sites around 13-14%. Biological crusts comprised 1-7% cover for the pasture. Plant diversity, composition (31-54% native grasses; 5-30% native forbs; 31-50% native shrubs), and cover are adequate for these sites and provide for ecological processes as well as habitat for diverse animal populations. Several rare sagebrushes are found in this pasture (see Chapter 2, Special Status Plants). This pasture has the most diverse forbs in the GMA and some reference quality low and Wyoming big sagebrush sites.

STANDARD 4 - *water quality*

Louse Canyon Pasture has several intermittently flowing interrupted stream systems. Many reaches are dry by July except for springs, potholes scoured out of the alluvium, and wet areas where water resurfaces. Numerous channels are incised, with denuded streambanks or with discontinuous, dissected sedge/rush mats bordering the channel. There are no physical or biological upland indicators in Standards 1or 3 that may affect water resources for this pasture. However, many riparian areas were rated Functioning-at-Risk and these could contribute to the impairment of water quality in the pasture. Spring sources, scour pools, wet areas, and riparian vegetation in this pasture are well utilized by livestock and lack the proper physical and biological characteristics to properly function and aid in the maintenance for water quality. Therefore, this pasture is not meeting Standard 4.

STANDARD 5 - *native, T&E, or locally important species*

TERRESTRIAL SPECIES—Meets standards

Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about terrestrial wildlife habitat health have been made:

Native sagebrush rangelands

SHRUB COVER – Habitats observed <u>meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland</u>. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.

HERBACEOUS COVER - Most habitats observed <u>meet the desired herbaceous understory conditions for native rangeland</u> (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions).

HABITAT CONNECTIVITY - There are no Class 1 or 2 <u>(grassland)</u> habitats of significant size within this pasture. The Geographic Management Area this pasture lies within exhibits a high level of connectivity and very low overall overstory fragmentation

TERRESTRIAL SOURCE HABITATS - Most of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Riparian plant composition and structure

Only some of the riparian conditions observed meet the desired forage, cover, and structure needs of terrestrial wildlife. The locations, types, and amounts of habitat

adversely affected by livestock grazing use warrant a change in grazing use management. Refer to Standard 2 narrative above.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

RIPARIAN SPECIES---Not meeting standard

Based on assessments for Standard 2 (*watershed function, riparian)* the riparian conditions observed on portions of Pole Creek, Jack Creek, Deer Creek, and Massey Canyon and 18 spring areas were not sufficient to dissipate stream energy, reduce erosion, store water for later release, or provide rearing and foraging areas for fish, amphibians, and invertebrates. These habitats were adversely affected by livestock grazing, which reduced plant cover and compacted wet soils.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : LOUSE CANYON COMMUNITY

Pasture : POLE CREEK SEEDING **Field Writeup Label(s) :**

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2 -** *watershed function, riparian*	**Standard 3 -** *ecological processes*	**Standard 4 -** *water quality*	**Standard 5 -** *native, T&E, or locally important species*
Meets	Does Not Meet*	Does Not Meet	Does Not Meet*	Does Not Meet – Terrestrial Does Not Meet* - Riparian

B. Supporting Narratives

STANDARD 1 - *watershed function, uplands:*
Seventeen rangeland health indicators were assessed at three locations in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. The three sites had between one and three indicators with a slight departure from the reference site. The remaining indicators at all three sites were what would be expected for the area as compared to the ecological reference area and/or the ecological site description. Overall, the pasture had soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian:*
Pole Creek has a short riparian reach (1.0 mi) in this pasture which serves as a major source of livestock water. This reach of Pole Creek is the only riparian area on public land. The altered physical and biological state of this watering area, which includes scour areas, discontinuous plant cover, lateral and down cutting of the streambanks, and historic and current livestock grazing, are contributing factors to existing conditions. Consequently this reach of Pole Creek was assessed as Functioning at Risk and was Not Meeting Standard 2.
.

STANDARD 3 - *ecological processes*
Plant composition and cover in most of this pasture is dominated by Wyoming big sagebrush, crested wheatgrass, bottlebrush squirreltail, and Sandberg bluegrass, with little else occupying the vegetative cover. Cheatgrass, other annuals, and noxious weeds are absent or in trace

amounts. Litter is at 6-30% which is slightly higher than expected for this pasture. Plant diversity and composition (6-65% exotic and native grasses; 1-15% native forbs; 16-75% native shrubs), is not as expected for this pasture as it is a crested wheatgrass seeding. But there are substantial native portions in this seeding that also lack in herbaceous cover and diversity. Actually, the seeded portion of the pasture has the most diversity because of native species moving in. Standard 3 is not being met as a diverse understory of native grass and forb species would be needed in the native portion to provide the ecological processes typical for this site. However, the seeded portion has a more diverse herbaceous understory than most seedings and would meet the standard if it was not dominated by crested wheatgrass. In summary, the standard is not met in this pasture.

STANDARD 4 - *water quality:*
Pole Creek in this pasture is an intermittently flowing, interrupted stream system with much of the segment dry by July except for a few perennial scour pools. Pole Creek channel is incised and has streambanks mostly void of vegetation, a silty substrate, and a discontinuous sedge/rush mat that is dissected throughout the reach. There are physical and/or biological factors in Standards 1 and 3 for this pasture that may affect water resources on-site or off-site. However, riparian areas assessed in Pole Creek for physical stream channel and floodplain properties were rated as Functioning-at-Risk and contribute to the impairment of water quality in the pasture. The scour pools, wet areas, and riparian vegetation of this reach are well utilized by livestock and lack the proper physical and biological characteristics to properly function and aid in the maintenance for water quality. Therefore this pasture is not meeting Standard 4.

STANDARD 5 - *native, T&E, or locally important species*
Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about wildlife habitat health have been made:

> ***Seeded* sagebrush rangelands**
> SHRUB COVER – Habitats observed <u>meet or exceed the minimum desired pasture level shrub cover conditions for seeded rangeland</u>. The amount of shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present. Substantial sagebrush recolonization has occurred within the Pole Creek Seeding since 1970 when about 4,000 acres (26% of the pasture) were planted to crested wheatgrass. Structural quality is somewhat limited in the seeded area due to the relatively young age and structural maturity of shrubs.
>
> HERBACEOUS COVER - Habitats observed <u>do not meet the minimum desired herbaceous understory conditions for seeded rangeland</u> (e.g. at least some native or introduced forb species).
>
> ***Native* sagebrush rangelands**
> SHRUB COVER – Habitats observed <u>meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland</u> for the remaining 74% of the pasture comprised of native rangeland. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.

HERBACEOUS COVER - Most habitats observed meet the desired herbaceous understory conditions for native rangeland (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions).

HABITAT CONNECTIVITY - Due to the overall degree of sagebrush community connectivity within the Geographic Management Area, Class 1 or 2 (grassland) conditions in this pasture do not contribute towards landscape level habitat fragmentation problems for wildlife.

Riparian plant composition and structure
Few of the riparian conditions observed meet the desired forage, cover, and structure needs of terrestrial wildlife. The locations, types, and amounts of habitat adversely affected by livestock grazing use warrant a change in grazing use management. Refer to Standard 2 narrative above.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : LOUSE CANYON COMMUNITY

Pasture : STEER CANYON (RAWHIDE) SEEDING **Field Writeup Label(s) :**

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2 -** *watershed function, riparian*	**Standard 3 -** *ecological processes*	**Standard 4 -** *water quality*	**Standard 5 -** *native, T&E, or locally important species*
Meets	Does Not Meet*	Does Not Meet	Does Not Meet*	Does Not Meet - Terrestrial Does Not Meet – Riparian*

B. Supporting Narratives

STANDARD 1 - *watershed function, uplands:*
Seventeen rangeland health indicators were assessed at one location in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. The pasture site had five indicators with slight departure from the reference site. The remaining indicators were comparable to the ecological reference area and/or the ecological site description. Overall, the pasture had soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian:*
Field Creek in this seeding is intermittent with a channel within a continuous sedge/rush mat that is dissected into gravel and cobble substrates. Two perennial spring areas provide localized but limited water. The upper reaches of Field Creek (4.8 mi) were rated Functioning at Risk-Trend Not Apparent based on the presence of scour areas, discontinuous plant cover, downcutting, and lack of point bar revegetation. Current and historic livestock grazing are contributing factors to existing conditions.

The lower reach of Field Creek (1.2 mi) is intermittent with private irrigated land at its upper end. Its Nonfunctional rating is due to dominance of upland plant species and barren areas, conditions caused by irrigation diversion which intercepts a large proportion of stream flow. Current livestock management does not appear to be a contribution factor.

STANDARD 3 - *ecological processes*

Steer Canyon Seeding is not meeting Standard 3. Plant composition and cover in most of this pasture are dominated by Wyoming big sagebrush, crested wheatgrass, and Sandberg bluegrass, but herbaceous diversity is lacking in the understory. A diverse understory of native grass and forb species would be needed to provide the ecological processes typical for this site. Cheatgrass, other annuals, and noxious weeds are absent or in trace amounts. Litter is about 15% cover, higher than most crested wheatgrass seedings. Biological crust cover was unexpectedly about 9% for this seeding. Plant diversity and composition (45 % exotic and native grasses; <1% native forbs; 55% native shrubs) was not as expected for a crested wheatgrass seeding.

STANDARD 4 - *water quality:*
A short segment of Field Creek (4.2 mi.) flows through Steer Canyon Seeding. This creek is an intermittently flowing interrupted stream system that dries by July except for areas around the Brown Place and another spring. There are no physical or biological factors in Standards 1or3 for this pasture that may affect water resources on-site or off-site. The Standard 2 Functioning-at-Risk assessment rating for physical stream channel and floodplain properties contributes to impairment of water quality in this area of Field Creek. The spring sources, wet areas, and riparian vegetation are well utilized by livestock and lack the proper characteristics to function and aid in the maintenance for water quality. Therefore this pasture is not meeting Standard 4.

STANDARD 5 - *native, T&E, or locally important species*

TERRESTRIAL SPECIES – Does not meet standards

Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, Final Environmental Impact Statement, the following conclusions about terrestrial wildlife habitat health have been made:

***Seeded* sagebrush rangelands**
SHRUB COVER – Habitats observed meet or exceed the minimum desired pasture level shrub cover conditions for seeded rangeland. The amount of shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.

Substantial sagebrush recolonization has occurred within the Steer Canyon (Rawhide) Seeding since 1965 when about 3,500 acres (56% of the pasture) were planted to crested wheatgrass. Structural quality is somewhat limited in the seeded area due to the relatively young age and structural maturity of shrubs. The remaining 44% of the pasture is comprised of native rangeland with Class 3/4/5 (shrubland) overstory conditions.

HERBACEOUS COVER - Habitats observed do not meet the minimum desired herbaceous understory conditions for seeded rangeland (e.g. at least some native or introduced forb species).

HABITAT CONNECTIVITY - Due to the overall degree of sagebrush community connectivity within the Geographic Management Area, Class 1 or 2 (grassland)

conditions in this pasture do not contribute towards landscape level habitat fragmentation problems for wildlife.

Riparian plant composition and structure
Few of the riparian conditions observed meet the desired forage, cover, and structure needs of terrestrial wildlife. The locations, types, and amounts of habitat adversely affected by livestock grazing use warrant a change in grazing use management. Refer to Standard 2 narrative above.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

RIPARIAN SPECIES – Does not meet standards

Field Creek has few perennial pools and low potential for fish habitat, although at least one fish species traverses it during runoff and may persist later in isolated pools. Field Creek provides breeding sites for Pacific treefrogs and possibly other amphibians. Though water is limiting, trampling and utilization from grazing lowers the quality and extent of aquatic habitat.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : STAR VALLEY COMMUNITY 1402

Pasture : NORTH STONEY CORRAL **Field Writeup Label(s) :**

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2 -** *watershed function, riparian*	**Standard 3 -** *ecological processes*	**Standard 4 -** *water quality*	**Standard 5 -** *native, T&E, or locally important species*
Meets	NA	Meets	Meets	Meets - Terrestrial

B. Supporting Narratives

STANDARD 1 - *watershed function, uplands:*
Seventeen rangeland health indicators were assessed at four locations in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. All indicators at one site were comparable to the ecological reference area and/or the ecological site description. The other four sites had between one and four indicators with slight departure from the reference site. Overall, the pasture had soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian:*
Not Applicable. This pasture does not contain riparian/wetland areas.

STANDARD 3 - *ecological processes*
Plant composition and cover in most of this pasture is dominated by Wyoming big sagebrush, bluebunch wheatgrass, Thurber's needlegrass, and, to a lesser extent, Sandberg bluegrass and Idaho fescue, with various forbs (hawksbeard, buckwheat, Hooker's balsamroot, fleabane, onion, and death camas) and biological crusts occupying the rest of the vegetative cover. Cheatgrass, other annuals, and noxious weeds are absent or in trace amounts in the pasture. Litter is at 6-15% cover as expected for the site. Biological crust cover is at least 6-15%, although one step-point transect had a 17% cover for crusts. The soils in about ⅓ to ½ of the pasture are similar to soils found in the SE portion of Spring Pasture (Anderson Allotment) and are not as productive as other sites. Sagebrush cover for most of this pasture is higher cover than what is listed in OAESIS site descriptions. In addition, OAESIS Site OR159 lists Indian ricegrass as a major component, but Indian ricegrass was not observed this pasture. It would seem that the OAESIS site description was in error. The sites appear to be a xeric Wyoming big sagebrush/bluebunch

wheatgrass or Thurber's needlegrass community. Overall, plant diversity, composition, (16-50% native grasses; 6-30% native forbs; 16-50% native shrubs) and cover are adequate for this pasture to provide for ecological processes as well as habitat for diverse animal populations. Therefore, the standard is met.

STANDARD 4 - *water quality*: This pasture does not contain stream channels with perennial water nor riparian/wetland areas. There are no limiting physical factors in Standards 1-3 for this pasture that may affect water resources on-site or off-site.

STANDARD 5 - *native, T&E, or locally important species*
Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about wildlife habitat health have been made:

Native sagebrush rangelands
SHRUB COVER – Habitats observed meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.

HERBACEOUS COVER - Most habitats observed meet the desired herbaceous understory conditions for native rangeland (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions).

HABITAT CONNECTIVITY - There are no Class 1 or 2 (grassland) habitats of significant size within this pasture. The Geographic Management Area this pasture lies within exhibits a high level of connectivity and low overall overstory fragmentation.

TERRESTRIAL SOURCE HABITATS - Most of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : STAR VALLEY COMMUNITY

Pasture : NORTH TENT CREEK **Field Writeup Label(s) :**

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2 -** *watershed function, riparian*	**Standard 3 -** *ecological processes*	**Standard 4 -** *water quality*	**Standard 5 -** *native, T&E, or locally important species*
Meets	NA	Meets	Meets	Meets-Terrestrial

B. Supporting Narratives - Standards of Rangeland Health

STANDARD 1 - *watershed function, uplands:*
Seventeen rangeland health indicators were assessed at two locations in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. All indicators at one site were what would be expected for the area as compared to the ecological reference area and/or the ecological site description. The second site contained two indicators with a slightly to moderate higher degree of departure from the reference site. Overall the pasture contained soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian:*
Not Applicable. This pasture does not contain riparian/wetland areas.

STANDARD 3 - *ecological processes*
Plant composition and cover in most of this pasture is dominated by Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail, Thurber's needlegrass, Sandberg bluegrass, with various forbs (phlox, hawksbeard, buckwheat, fleabane, biscuit root, and milkvetch) and biological crusts occupying the rest of the vegetative cover. Cheatgrass, other annuals, and noxious weeds are absent or in trace amounts. Litter is 6-15% cover for most of the pasture, although some areas litter was in the range of 1-5% cover. The OASIS site description for this pasture indicates a very dry site with bud sage, shadscale, spiny hopsage, Thurber's needlegrass, and bottlebrush squirreltail mingled with Wyoming big sagebrush and bluebunch wheatgrass. The area is the more xeric phase of Wyoming sage/bluebunch sites. Sagebrush cover is dense and limits herbaceous cover. Overall, plant diversity, composition (16-50% native grasses; 6-15% native forbs; 31-75% native shrubs), and cover are adequate for this pasture to provide for

ecological processes as well as habitat for diverse animal populations. Therefore, the standard is met.

STANDARD 4 - *water quality*: This pasture does not contain stream channels with perennial water nor riparian/wetland areas. There are no limiting physical factors in Standards 1-3 that may affect water resources on-site or off-site.

STANDARD 5 - *native, T&E, or locally important species*
Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about wildlife habitat health have been made:

Native sagebrush rangelands
SHRUB COVER – Habitats observed meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.

HERBACEOUS COVER - Most habitats observed meet the desired herbaceous understory conditions for native rangeland (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions).

HABITAT CONNECTIVITY - There are no Class 1/2 (grassland) habitats of significant size within this pasture. The Geographic Management Area this pasture lies within exhibits a high level of connectivity and very low overall overstory fragmentation.

TERRESTRIAL SOURCE HABITATS - Most of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : STAR VALLEY COMMUNITY

Pasture : SOUTH TENT CREEK **Field Writeup Label(s) :**

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2** - *watershed function, riparian*	**Standard 3** - *ecological processes*	**Standard 4** - *water quality*	**Standard 5** - *native, T&E, or locally important species*
Meets	Does Not Meet*	Meets	Does Not Meet*	Meets-Terrestrial Does Not Meet*-Riparian

Supporting Narratives

STANDARD 1 - *watershed function, uplands*
Seventeen rangeland health indicators were assessed at three locations in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. All sites had one or two indicators with a slight departure from the reference site, but most were comparable to the ecological reference area and/or the ecological site description. Overall, the pasture had soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian*
South Tent Creek Pasture riparian areas are mostly limited to upper portions of the Tent Creek watershed. Mahogany Creek was rated PFC, but riparian conditions observed on segments of Tent Creek, Jack Creek, and 3 spring/meadow areas were not sufficient to dissipate stream energy, reduce erosion, or store water for later release. These habitats were adversely affected by livestock grazing, which reduced plant cover and compacted wet soils.

STANDARD 3 - *ecological processes*
Standard 3 was met in South Tent Creek Pasture. Plant composition and cover in most of this pasture are dominated by Wyoming big sagebrush, low sagebrush, bluebunch wheatgrass, Idaho fescue, bottlebrush squirreltail, and Sandberg bluegrass, with various forbs (phlox, hawksbeard, buckwheat, fleabane, biscuit root, and onion) and biological crusts occupying the rest of the vegetative cover. Cheatgrass, other annuals, and noxious weeds are absent or occur in trace amounts. Litter cover is 6-15%. For two-thirds of the pasture, the OAESIS site description indicates a very dry site with bud sage, shadscale, spiny hopsage, Thurber's needlegrass, and

bottlebrush squirreltail expected to accompany the dry phase of Wyoming big sagebrush and bluebunch wheatgrass. Wyoming big sagebrush cover is dense, causing a lower cover of key grass species relative to the grass cover expected in the site descriptions. Shrub cover in the low sagebrush portion of the pasture was not dense, and perennial grass and forb components were what would be expected for this site. Overall, plant diversity, composition (16-50% native grasses; 1-30% native forbs; 16-75% native shrubs), and cover are adequate and provide for ecological processes as well as habitat for diverse animal populations.

STANDARD 4 - *water quality*

South Tent Creek pasture has intermittently flowing interrupted stream systems that usually dry by July except for spring areas. There are no limiting physical or biological factors identified in Standards 1or 3 for this pasture that may affect water resources on-site or off-site. However, riparian areas assessed for physical stream channel and floodplain properties were rated as Functioning-at-Risk and contribute to the impairment of water quality in the pasture. Spring sources, wet areas, and riparian vegetation are well utilized by livestock and lack the proper characteristics to function and aid in the maintenance for water quality. Therefore this pasture is not meeting Standard 4.

STANDARD 5 - *native, T&E, or locally important species*

TERRESTRIAL SPECIES –Meets Standards

Based on an assessment of plant composition and structure criteria cited in Appendix F of the SEORMP, the following conclusions about wildlife habitat health have been made:

Native sagebrush rangelands

SHRUB COVER – Habitats observed meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present.

Poor structural habitat quality was observed in certain isolated basin big sagebrush subtypes that are nested within low sagebrush dominated communities. These areas comprise a small fraction of the pasture. In these particular instances, umbrella-form shrubs with heavily grazed understories (as per BLM utilization definitions) were observed.

HERBACEOUS COVER - Most habitats observed meet the desired herbaceous understory conditions for native rangeland (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions).

HABITAT CONNECTIVITY - There are no Class 1 or 2 (grassland) habitats of significant size within this pasture. The Geographic Management Area this pasture lies within exhibits a high level of connectivity and low overall overstory fragmentation.

TERRESTRIAL SOURCE HABITATS - Most of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Riparian plant composition and structure

Only some of the riparian conditions observed meet the desired forage, cover, and structure needs of terrestrial wildlife. The locations, types, and amounts of habitat adversely affected by livestock grazing use, especially in wet meadow types, warrant a change in grazing use management. Refer to Standard 2 narrative above.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

RIPARIAN SPECIES---Not meeting standard

Based on assessments for Standard 2, riparian conditions observed on segments of Tent Creek, Jack Creek, and 3 spring/meadow areas were not sufficient to dissipate stream energy, reduce erosion, store water for later release. These habitats were adversely affected by livestock grazing, which reduced plant cover and compacted wet soils. Although fish do not occur in South Tent Creek Pasture, these riparian areas provide rearing and foraging areas for amphibians, especially Pacific treefrogs, and invertebrates.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : STAR VALLEY COMMUNITY 1402
Pasture : TRISTATE **Field Writeup Label(s) :**

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2 -** *watershed function, riparian*	**Standard 3 -** *ecological processes*	**Standard 4 -** *water quality*	**Standard 5 -** *native, T&E, or locally important species*
Meets	Meets	Meets	Meets	Meets-Terrestrial

B. Supporting Narratives

STANDARD 1 - *watershed function, uplands:*
Seventeen rangeland health indicators were assessed at two locations in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. Both sites had between two and five indicators with a slight departure from the reference site. The remaining indicators at both sites were what would be expected for the area as compared to the ecological reference area and/or the ecological site description. Overall, the pasture had soil, hydrologic, and biotic characteristics comparable to the reference site and/or ecological site description. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian*
Riparian areas are mostly along the margins of Tent Creek (8.5 mi) and are rated PFC, or meeting Standard 2. Short-lived seasonal runoff limits the development of riparian plant communities, and revegetation from occurring on banks and point bars. Although livestock utilization is extensive in many areas throughout the drainage channel, the channel is well armored with rock as indicated by minimal downcuts, headcuts, or lateralcuts present in the channel.

STANDARD 3 - *ecological processes*
Plant composition and cover in most of this pasture is dominated by Wyoming big sagebrush, Bluebunch wheatgrass, Bottlebrush squirreltail, Sandberg bluegrass, with various forbs (phlox, hawksbeard, buckwheat, fleabane, biscuit root, death camas, and lupine) and biological crusts occupying the rest of the vegetative cover. In some areas, such as the salt desert shrub communities, biological crust cover was as high as 28%. Cheatgrass, other annuals, and noxious weeds are absent or in trace amounts and litter is 6-15% cover. Sagebrush cover was dense for most of the pasture, reducing herbaceous cover. The OASIS site description for the pasture

indicates a very dry site with bud sage, shadscale, spiny hopsage Indian ricegrass, Sandberg bluegrass and bottlebrush squirreltail. However, most of the pasture has Wyoming big sagebrush cover with little if any Indian ricegrass, so the site description did not describe the plant community that dominated this pasture. Therefore, it was determined that about ⅔ of the pasture is meeting Standard 3 and ⅓ is inconclusive. Overall, Standard 3 was met in this pasture because even though part of the pasture may have lacked expected cover of key forage grasses, there was a high biological crust component suggesting good ecological health for a xeric rangeland area. Plant composition was 10-30% native grasses, 1-15% native forbs, and 51-89% native shrubs.

STANDARD 4 - *water quality*
Tent Creek (8.5 mi.), an intermittently flowing, interrupted stream system that usually dries by July, flows through Tristate Pasture. There are no limiting physical or biological factors in Standards 1-3 for this pasture that may affect water resources on-site or off-site.

STANDARD 5 - *native, T&E, or locally important species*
Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about wildlife habitat health have been made:

Native sagebrush rangelands
SHRUB COVER – Habitats observed meet or exceed the minimum desired pasture level shrub cover conditions for native rangeland. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present. Tristate Pasture sagebrush communities are typical of those existing under very xeric conditions (e.g. shrubs have low stature and low canopy complexity consistent with soils, climate, and landform).

HERBACEOUS COVER - Most habitats observed meet the desired herbaceous understory conditions for native rangeland (e.g. multiple species of native forbs and grasses consistent with mid, late, or potential natural community ecological conditions). In terms of overall productivity, this pasture is perhaps the least productive region within the GMA.

HABITAT CONNECTIVITY - There are no Class 1 or 2 (grassland) habitats of significant size within this pasture. The Geographic Management Area this pasture lies within exhibits a high level of connectivity and very low overall overstory fragmentation.

TERRESTRIAL SOURCE HABITATS - Most of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation (Summer-Fall 2000)* for other details.

Range Health Interdisciplinary Team Members - Tom Forre, Tom Miles, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01

OR/WA Standards of Rangeland Health Determinations

Resource Area : JORDAN **Allotment name/number** : AMBROSE MAHER 01102

Pasture : AMBROSE MAHER **Field Writeup Label(s) :** AM1

A. Summary Determinations

Standards that are not being met due to current livestock grazing are labeled with an asterisk (*****)

Standard 1 - *watershed function, uplands*	**Standard 2 -** *watershed function, riparian*	**Standard 3 -** *ecological processes*	**Standard 4 -** *water quality*	**Standard 5 -** *native, T&E, or locally important species*
Meets	NA	Meets	Meets	Does Not Meet – Terrestrial

B. Supporting Narratives

STANDARD 1 - *watershed function, uplands*
Seventeen rangeland health indicators were assessed at one location in this pasture for Upland Watershed Soil /Site Stability, Hydrologic Function, and Integrity of the Biotic Community. Twelve indicators at the site were rated at what would be expected for the area as compared to the ecological reference area and/or the ecological site description. Slight departure of five indicators (four biotic and one soil/hydrologic) from the reference site was attributed to the 1985 Lone Tree wildfire which removed shrub overstory. The pasture meets the standard.

STANDARD 2 - *watershed function, riparian*
Not Applicable. This pasture does not contain riparian/wetland areas.

STANDARD 3 - *ecological processes*
Due to wildfire disturbance, plant composition and cover in most of this pasture is dominated by bluebunch wheatgrass, bottlebrush squirreltail, and Sandberg bluegrass, and native shrub cover is absent. Perennial forbs are sparse. These conditions are either wholly or partially related to wildfire impacts and are not likely to be the result of livestock use. Despite lack of shrubs and forbs, the biological integrity of Ambrose Maher allotment is not impaired by invasive or noxious plant species. Standard 3 is met because the pasture is expected to recover a more balanced plant community over time.

STANDARD 4 - *water quality*
This pasture does not have stream channels with perennial water nor riparian/wetland areas. There are no limiting physical or biological factors in Standards 1-3 for this pasture that may affect water resources on-site or off-site.

STANDARD 5 - *native, T&E, or locally important species*
Based on an assessment of plant composition and structure criteria cited in Appendix F of the Southeast Oregon Resource Management Plan, the following conclusions about terrestrial wildlife habitat health have been made:

Native sagebrush rangelands
SHRUB COVER – Habitats observed meet the minimum desired pasture level shrub cover conditions for native rangeland. The amount and quality of most shrubland habitat necessary to meet the forage, cover, and structure needs of wildlife (including sage grouse and other animals that occupy sagebrush habitats) is present. However, the 1985 wildfire has temporarily eliminated 49% of sagebrush shrub communities that could potentially be present in Ambrose Maher allotment. Most remaining shrubland communities are located in canyon landforms.

HERBACEOUS COVER - Most habitats observed do not meet the desired herbaceous understory conditions for native rangeland. Perennial grass composition was vigorous and healthy but forb composition was very limited. Whether lack of forbs is caused by (1) wildfire; (2) site potential; or (3) conducting the S&G assessment at the end of the growing season is not clear. Given the limited amount and duration of livestock grazing use authorized, it is not likely that the limited forb composition is due to livestock grazing impacts.

HABITAT CONNECTIVITY - Due to the overall amount of sagebrush community fragmentation in the adjoining Jackies Butte GMA, Class 1 & 2 (grassland) conditions in Ambrose Maher Allotment contribute towards landscape level habitat fragmentation problems for wildlife. Nearly 45% of Jackies Butte GMA is comprised of native, exotic perennial, and invasive annual grassland communities that are hostile environments for sage grouse and other animals that occupy sagebrush habitats.

TERRESTRIAL SOURCE HABITATS - Most if not all of the upland habitat observed conforms to *Terrestrial Source Habitat* criteria described in the *Interior Columbia Basin Ecosystem Management Project*.

Other supporting information - Refer to Jordan Resource Area wildlife evaluation file: *Louse Canyon Geographic Management Area Summary Evaluation Summer-Fall 2000)* for other details.

Range Health Interdisciplinary Team Members – Travis Fletcher, Brandon Knapton, Cynthia Tait, Jack Wenderoth, Jon Sadowski

Authorized officer /s/ JERRY L. TAYLOR
Jerry L. Taylor, Area Manager

Date of determination 12/7/01