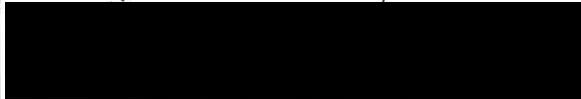
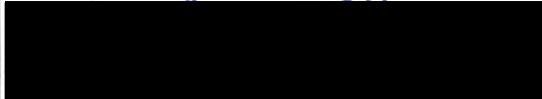
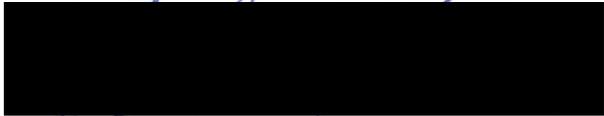


**Douglas Creek Watershed Results of Assessment and Authorized Officer's
Determination
of
Land Health Standards
And
Conforming With Guidelines for Livestock Grazing Management**

Field Office: Wenatchee Resource Area	Watershed Name: Douglas Creek
Assessment Area: BLM lands within the Douglas Creek Watershed	
Interdisciplinary Team Conclusions of Assessment	
	
Angela Link, Rangeland Management Specialist	
	
Erik Ellis: Wildlife, T & E Fauna, Riparian	
	
Chris Sheridan: Soils, Water, Riparian, Fisheries	
	
Molly Boyter: Botany, T & E Flora	

Standard 1 (Watershed Function - Uplands)

Upland soils exhibit infiltration and permeability rates, moisture storage and stability that are appropriate to soil, climate and landform.

Check the appropriate box(s):

Standard

- Meeting the Standard
- Making Significant Progress Toward Meeting the Standard
- Not Meeting the Standard
- Standard does not apply.

Establishment of Cause

- Existing grazing management practices are significantly contributing to the failure to meet the standard.
- Existing grazing management practices **are not significantly** contributing to the failure to meet the standard.
- Failure to meet the standard is related to other uses or conditions: *(identify uses or conditions)*
 - On-site activity or condition is a significant causal factor for Not Meeting the Standard.
 - Off-site activity or condition is a significant causal factor for Not Meeting the Standard.

Guidelines for Livestock Grazing Management

- Conforms with Guidelines for Livestock Grazing Management
- Does not conform with Guidelines for Livestock Grazing Management Guideline

Rationale/Information Sources:

(Briefly summarize the findings in the assessment area and the rationale for each box checked. Identify the indicators used to determine attainment of, or failure to attain, the Standard and describe the conditions and trends of those indicators. Describe the portion(s) of assessment area where the standard is met and/or not met. Reference any quantitative or monitoring data, recent watershed or allotment assessment, or other appropriate documents used in the assessment. Identify evidence used to establish the cause of failure to meet the standard.)

The findings for upland watershed function, the methods supporting these findings, and a description of Standard 1 of the Standards for Rangeland Health for BLM lands in Oregon/Washington are detailed in the Douglas Creek Watershed Land Health Evaluation (DCW LHE).

All allotments (and similarly sized unleased areas) in the assessment area were found to be “meeting” Standard 1 by the interdisciplinary team (IDT). In general, allotments had soil site stability and hydrologic function minimally departed from reference conditions. Biotic integrity had slight to moderate departure from reference conditions for all allotments studied in the assessment area, primarily due to invasive species and agricultural practices.

Standard 2 (Watershed Function - Riparian/Wetland Areas)

Check the appropriate box(s):

Standard

- Meeting the Standard
- Making Significant Progress Toward Meeting the Standard
- Not Meeting the Standard
- Standard does not apply.

Establishment of Cause

- Existing grazing management practices are significantly contributing to the failure to meet the standard.
- Existing grazing management practices **are not significantly** contributing to the failure to meet the standard.
- Failure to meet the standard is related to other uses or conditions: *(identify uses or conditions)*
 - On-site activity or condition is a significant causal factor for Not Meeting the Standard.
 - Off-site activity or condition is a significant causal factor for Not Meeting the Standard.

Guidelines for Livestock Grazing Management

- Conforms with Guidelines for Livestock Grazing Management
- Does not conform with Guidelines for Livestock Grazing Management Guideline

Rationale/Information Sources:

(Briefly summarize the findings in the assessment area and the rationale for each box checked. Identify the indicators used to determine attainment of, or failure to attain, the Standard and describe the conditions and trends of those indicators. Describe the portion(s) of assessment area where the standard is met and/or not met. Reference any quantitative or monitoring data, recent watershed or allotment assessment, or other appropriate documents used in the assessment. Identify evidence used to establish the cause of failure to meet the standard.)

The findings for watershed function – riparian/wetland areas, the methods supporting these findings, and a description of Standard 2 of the Standards for Rangeland Health for BLM lands in Oregon/Washington are detailed in the Douglas Creek Watershed Land Health Evaluation (DCW LHE).

During the 2012 assessment period, 29 reaches totaling approximately 24 miles were assessed for lotic or lentic riparian function. Four riparian areas were assessed: Douglas Creek, Duffy Creek, McCue Springs, and an unnamed creek in Titchenal Canyon. No wetlands were encountered outside of riparian stream corridors during stream proper functioning condition (PFC) assessments; no lentic riparian-wetland areas were identified during upland assessments.

All but one of the riparian stream reaches assessed in the Douglas Creek Watershed (DCW) were rated as in PFC and “meeting” Standard 2. Although most reaches were rated as meeting Standard 2, small-scale concerns were noted by the IDT. Within-reach, site-scale concerns included: localized lack of adequate riparian-wetland vegetative cover to protect banks and dissipate energy during high flows (PFC item 11), stream crossings leading to localized sediment delivery, limited sources of large woody debris (PFC item 12), and reduced species diversity and composition.

The 1.8 mile creek in Titchenal Canyon allotment had cobble substrate, well-developed riparian vegetation, and stable banks for the majority of its length. One reach (less than 0.2 mi.) was rated at functioning at risk (FAR) due to lack of riparian vegetation and bank impacts. This reach accounts for less than 10% of the entire creek length, and does not have an impact on downstream conditions or overall creek function.

Standard 3 (Ecological Processes)

Check the appropriate box(s):

Standard

- Meeting the Standard
- Making Significant Progress Toward Meeting the Standard
- Not Meeting the Standard
- Standard does not apply.

Establishment of Cause

- Existing grazing management practices are significantly contributing to the failure to meet the standard.
- Existing grazing management practices **are not significantly** contributing to the failure to meet the standard.
- Failure to meet the standard is related to other uses or conditions: *(identify uses or conditions)*
 - On-site activity or condition is a significant causal factor for Not Meeting the Standard.
 - Off-site activity or condition is a significant causal factor for Not Meeting the Standard.

Guidelines for Livestock Grazing Management

- Conforms with Guidelines for Livestock Grazing Management
- Does not conform with Guidelines for Livestock Grazing Management Guideline

Rationale/Information Sources:

(Briefly summarize the findings in the assessment area and the rationale for each box checked. Identify the indicators used to determine attainment of, or failure to attain, the Standard and describe the conditions and trends of those indicators. Describe the portion(s) of assessment area where the standard is met and/or not met. Reference any quantitative or monitoring data, recent watershed or allotment assessment, or other appropriate documents used in the assessment. Identify evidence used to establish the cause of failure to meet the standard.)

The findings for ecological processes, the methods supporting these findings, and a description of Standard 3 of the Standards for Rangeland Health for BLM lands in Oregon/Washington are detailed in the Douglas Creek Watershed Land Health Evaluation (DCW LHE).

Based on indicators of rangeland health (IRH) plot data and field observations, the assessment area was evaluated for Standard 3 indicators of ecological processes, including indicators of effective photosynthesis and nutrient cycling. All allotments and unleased areas within the

assessment area were classified as “meeting” Standard 3 by the IDT, at the allotment scale. During this analysis, nutrient cycling appeared to have no more than slight to moderate departure from the potential of the area. Photosynthesis appeared to be effectively occurring with no more than slight to moderate departure from reference conditions, as evidenced by plant community composition and structure.

Standard 4 (Water Quality)

Surface water and groundwater quality, influenced by agency actions, complies with State water quality standards.

Check the appropriate box(s):

Standard

- Meeting the Standard
- Making Significant Progress Toward Meeting the Standard
- Not Meeting the Standard
- Standard does not apply.

Establishment of Cause

- Existing grazing management practices are significantly contributing to the failure to meet the standard.
- Existing grazing management practices **are not significantly** contributing to the failure to meet the standard.
- Failure to meet the standard is related to other uses or conditions: *(identify uses or conditions)*
 - On-site activity or condition is a significant causal factor for Not Meeting the Standard.
 - Off-site activity or condition is a significant causal factor for Not Meeting the Standard.

Guidelines for Livestock Grazing Management

- Conforms with Guidelines for Livestock Grazing Management
- Does not conform with Guidelines for Livestock Grazing Management Guideline

Rationale/Information Sources:

(Briefly summarize the findings in the assessment area and the rationale for each box checked. Identify the indicators used to determine attainment of, or failure to attain, the Standard and describe the conditions and trends of those indicators. Describe the portion(s) of assessment area where the standard is met and/or not met. Reference any quantitative or monitoring data, recent watershed or allotment assessment, or other appropriate documents used in the assessment. Identify evidence used to establish the cause of failure to meet the standard.)

The findings for water quality, the methods supporting these findings, and a description of Standard 4 of the Standards for Rangeland Health for BLM lands in Oregon/Washington are detailed in the Douglas Creek Watershed Land Health Evaluation (DCW LHE).

Evaluation of water quality in DCW is based on data from several stations along Douglas Creek, monitored since 1988 by Foster Creek Conservation District. Douglas Creek collects water from tributaries in the DCW, and thus integrates water quality from the entire watershed. Douglas Creek is not 303(d) water quality listed. Douglas Creek generally meets applicable water quality standards for measured water quality indices that include water temperature, dissolved oxygen, fecal coliform levels, pH, turbidity, and toxins.

Douglas Creek was found to be “meeting” Standard 4 by the IDT. Water quality in Douglas Creek had little departure from state standards for measured water quality indicators (described in DCW LHE) other than water temperature. Although Douglas Creek water temperature peaks were slightly above state standards for the support of indicator species (redband trout, not present in Douglas Creek), this creek is fed by warm springs; water temperature is probably only minimally affected by surrounding land use. Macroinvertebrate production and diversity in Douglas Creek suggest moderately high water quality.

Standard 5 (Habitat for Native, T&E, and Locally Important Species)

Habitats support healthy, productive and diverse populations and communities of native plants and animals (including special status species and species of local importance) appropriate to soil, climate and landform.

Check the appropriate box(s):

Standard

- Meeting the Standard (Rimrock and Slack Canyon Allotments)
- Making Significant Progress Toward Meeting the Standard (Douglas Creek, Duffy Creek, Titchenal Canyon Allotments, and Unleased West)
- Not Meeting the Standard (Douglas Creek Canyon and New Acquisition)
- Standard does not apply.

Establishment of Cause

- Existing grazing management practices are significantly contributing to the failure to meet the standard.
- Existing grazing management practices **are not significantly** contributing to the failure to meet the standard.
- Failure to meet the standard is related to other uses or conditions: *(identify uses or conditions)*
 - On-site activity or condition is a significant causal factor for Not Meeting the Standard.
 - Off-site activity or condition is a significant causal factor for Not Meeting the Standard.

Guidelines for Livestock Grazing Management

- Conforms with Guidelines for Livestock Grazing Management
- Does not conform with Guidelines for Livestock Grazing Management Guideline

Rationale/Information Sources:

(Briefly summarize the findings in the assessment area and the rationale for each box checked. Identify the indicators used to determine attainment of, or failure to attain, the Standard and describe the conditions and trends of those indicators. Describe the portion(s) of assessment area where the standard is met and/or not met. Reference any quantitative or monitoring data, recent watershed or allotment assessment, or other appropriate documents used in the assessment. Identify evidence used to establish the cause of failure to meet the standard.)

The findings for habitat for native, T&E, and locally important species, the methods supporting

these findings, and a description of Standard 5 of the Standards for Rangeland Health for BLM lands in Oregon/Washington are detailed in the Douglas Creek Watershed Land Health Evaluation (DCW LHE).

Habitat for species other than the longsepal globemallow (*Illiamna longesepala*) and sagebrush obligate animals was characterized as “meeting” Standard 5 by the IDT for all allotments and areas. Overall the assessment area exhibited no more than a slight to moderate departure from site appropriate hydrologic function, soil/site stability, and biotic integrity. Riparian and wetland areas were found to be in properly functioning physical condition in nearly all reaches. Based on these conditions, the assessment area would generally be expected to support healthy, productive and diverse plant and animal populations and communities including shrub-steppe, sparsely vegetated and riparian associated species. However, site-specific conditions and species-specific habitat needs still influence Standard 5 indicators, including the spatial distribution of habitat and population stability/ resilience for longsepal globemallow (a Special Status Species) and for sagebrush obligate species.

Longsepal globemallow

Longsepal globemallow is considered sensitive by both the BLM and Washington Natural Heritage Program. In the assessment area, it is currently found on the floodplain of Douglas Creek Canyon. One population of this species occurs across approximately four miles of the floodplain of Douglas Creek. The number of plants at each of the six known sites comprising the population range from one to several.

Although in general the shrub-steppe habitat in the assessment area is “meeting” rangeland health standards, habitats supporting the longsepal globemallow population in Douglas Creek Canyon were found to be “not meeting” Standard 5 for the following reasons:

- While potential habitat exists in DCW, the six globemallow sites in this population are widely scattered and two of these are comprised of one mature plant. This indicates that little to no recruitment has occurred. The species appears to depend on out-crossing, which is limited by the distance between plant occurrences.
- Many of the Douglas Creek Canyon longsepal globemallow sites consist of sparsely scattered single plants that are vulnerable to site disturbance. Exhaustive monitoring of this population has not occurred, but relocation of historically occupied sites suggests that site densities are either very small and stable or decreasing/lost.
- Fire may be needed to break seed dormancy in this species, and removal of wildland fire may be detrimental to the survival of individuals. Loss of wildland fire may be limiting reproduction.
- Noxious weeds including knapweed and tumble mustard have expanded around many of the longsepal globemallow occurrences. This competition may be limiting reproduction by reducing the areas available for new plants.

Livestock grazing has not occurred in the Douglas Creek Canyon since 1976. There is no existing livestock grazing use in this area and therefore grazing is not considered a significant

causal factor for not meeting Standard 5 for the longsepal globemallow. The IDT identified lack of fire disturbance and competition with invasive exotic species as the apparent causal factors.

Sagebrush obligates

Standard 5 findings for habitat in allotments supporting sagebrush obligate species were based primarily on the site-scale (fourth-order) analyses described in the Habitat Assessment Framework (HAF) (Appendix C in the DCW LHE). Site-scale analysis in the HAF was conducted specifically for the assessment area, BLM-administered lands in DCW. This analysis assumed that loamy soils in the assessment area were capable of supporting shrub and understory conditions associated with greater sage-grouse (*Centrocercus urophasianus*) habitat requirements, and able to meet HAF habitat suitability characteristics for sagebrush cover. Therefore, only loamy dominated ESDs were used to define potential habitat areas. Natural Resource Conservation Service defined ecological site potential production values were not used to define habitat capability.

Based on the HAF analysis of site conditions in the assessment area and influences at larger spatial scales, Rimrock and Slack Canyon allotments and Douglas Creek Canyon area in the assessment area were classified as “meeting” Standard 5. Douglas Creek, Duffy Creek, and Titchenal Canyon allotments and the Unleased West areas were classified as “making significant progress” toward meeting Standard 5. The New Acquisition parcel was rated as “not meeting” Standard 5 for the sagebrush obligate animal community, including greater sage-grouse.

Based on limited historic vegetation transect data and documented restoration of native plants on more than 175 acres, Douglas Creek, Duffy Creek, Titchenal Canyon and Unleased West units appear to be on an upward trend for sagebrush obligate habitat supporting this species group. Current livestock grazing was not determined to be a significant causal factor preventing these areas from “making significant progress” toward meeting Standard 5 for the sagebrush obligate animal community, including greater sage-grouse for these units.

Approximately 337 acres of the 1000 acres of the New Acquisition area supports potential greater sage-grouse breeding habitat; the majority of this potential habitat is classified as marginal, due to the lack of sagebrush. Current livestock grazing was not determined to be a significant causal factor in not meeting Standard 5 for the sagebrush obligate animal community, including greater sage-grouse in this unit. The IDT identified that limited sagebrush cover in this area appears to be due to historic agriculture on the loamy soils on this parcel.

Douglas Creek Watershed Land Health Determination

Based on my review of the Interdisciplinary Team's recommendations, and other relevant data and information, I have determined that the following two allotments within the Douglas Creek Watershed are "meeting" all five of the Standards for Rangeland Health for BLM lands in Oregon/Washington.

1. Rimrock
2. Slack Canyon

I have determined that the following three allotments and one unleased area within the Douglas Creek Watershed are "meeting" Standard 1, 2, 3, and 4, and are "making significant progress" toward meeting the Standard 5 for Rangeland Health for BLM lands in Oregon/Washington for the sagebrush obligate animal community, including greater sage-grouse.

1. Douglas Creek
2. Duffy Creek
3. Unleased West
4. Titchenal Canyon

Based on limited historic vegetation transect data and documented restoration of native plants on more than 175 acres, Douglas Creek, Duffy Creek, and Unleased West units appear to be on an upward trend for sagebrush obligate habitat supporting this species group. Current livestock grazing was not determined to be a significant causal factor preventing "making significant progress toward meeting" Standard 5 for the sagebrush obligate animal community, including greater sage-grouse for these units.

I have determined that the following two unleased areas meet Standard 1, 2, 3, and 4, and are "not meeting" Standard 5 for Rangeland Health for BLM lands in Oregon/Washington for the sagebrush obligate animal community, including greater sage-grouse and for the longsepal globemallow plant population.

1. New Acquisition
2. Douglas Creek Canyon

Further, I have determined that current livestock grazing is not a significant causal factor in "not meeting" Standard 5 for these units. Identified factors that have caused Standard 5 to not be met include lack of fire and competition with invasive exotic species for longsepal globemallow in Douglas Creek Canyon, and historic agriculture for sagebrush obligates in the New Acquisition.


Linda Coates-Markle
Wenatchee Field Office Manager

5/14/14
Date