**Bear Gulch Allotment 2022 End of Year Report**

**NMFS BO No: WCR-2017-7355**

Wallowa-Whitman National Forest

Wallowa Valley Ranger District

10 May 2023

Introduction: The purpose of this report is to satisfy Terms and Conditions set forth in the Biological Opinion from NMFS, WCR-2017-7355. This report answers directly to each Term and Condition.

**Terms and Conditions**

1. To implement reasonable and prudent measure RPM 1 (minimize take from livestock grazing), the WWNF shall:
   1. Monitor pastures mid-season and at the end-of-season as described in the Proposed Action.

Mid-Season Monitoring:

* Mid-season monitoring was not completed.

End of Season Monitoring:

* End of season monitoring was completed in the Deadhorse Pasture at the Bear Gulch DMA on 02 September 2022.

**Table 1**. Bear Gulch steelhead spawning habitat accessible to livestock before July 1

|  |  |  |  |
| --- | --- | --- | --- |
| Pasture | DMA | Location | Stream |
| Lower Bear Gulch | K8A Bear Gulch DMA | UTM 11T 508064/5036623 | Bear Gulch |
| Deadhorse | K7A Bear Gulch DMA | UTM 11T 505084/5028060 | Bear Gulch |

Effectiveness (Long-Term) Monitoring:

* Effectiveness monitoring was completed in the Lower Bear Gulch Pasture, Bear Gulch stream on June 22, 2020.
  1. Monitor streambank alteration levels, at the DMA sites which the WWNF staff has proposed for each pasture.
* Bank alteration was monitored in the Deadhorse pasture. Bank alteration was below 20%. The results are shown in term 2. ii, Table 4.
  1. The WWNF shall ensure all enclosures, fences, and water developments that reduce cattle use adjacent to streams are properly maintained and functioning as intended.
* No riparian enclosures are within this allotment.
* Maintenance on water developments is ongoing. From the Big Sheep Divide Range Analysis Decision Memo-Develop watering site in Lower Bear Gulch pasture, piping water from Rattlesnake springs to this pasture. This will aid in cattle distribution.
  1. The WWNF shall use the Long-Term and Annual Adaptive Management Strategies described in the Proposed Action to adjust grazing management strategies when needed to maintain desired stream habitat conditions and minimize incidental take.
* Long-term strategy currently, is the placement of DMAs on the allotment to determine riparian health, condition, and trend toward or away from desired conditions. Reading will occur every 5 years. Annual monitoring can help to explain changes in trend over time. In Table 5 and Table 6 below, the standout indicators are bank stability and cover. Lower Bear Gulch and Deadhorse pastures are not meeting objectives in these indicators. Actions to take would include shorter time in pastures, use of trigger monitoring to aid in timing of pasture moves. Changes to season of use to reduce time livestock spend in riparian areas. Terrain is difficult, funneling livestock to spend the season of use in the riparian bottoms.
* Annual strategies applied are trigger monitoring with the permittee on DMAs to determine greenline stubble height and bank alteration. End of Season monitoring timing is critical to get a clear measure of what indicator is not being met. The data below shows bank alteration is being met. Stubble height was slightly below the 6-inch standard in Deadhorse. Late fall visits to the Allotment may reveal livestock have returned to the pasture after the pasture off date. Moving all livestock from the pasture and periodic inspections for strays would aid in meeting objectives.

* No incidental take was identified during the 2022 grazing season.

1. The following terms and conditions implement RPM 2 (monitoring and reporting). The WWNF shall:
   1. Submit an annual monitoring report to NMFS by February 1 each year with the following:
      1. Overview of proposed action and actual management (e.g., livestock numbers, on-off dates for each pasture, etc.)

* See Table 2 - permitted numbers and season of use and Table 3- pasture use dates and number of head in pastures.

**Table 2.** Permitted Livestock Numbers On-Off Dates by Permit

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Class** | **Term** | **Private Land** | **Season** |
| **Permittee** | c/c | 124 | 19 | 4/16 – 11/10 |

**Table 3.** Bear Gulch 2021 Grazing Schedule

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Pasture** | **Hd** | **Apr** | **May** | **Jun** | **July** | **Aug** | **Sep** | **Oct** | **Nov** |
| Lower Bear Gulch | 103 |  |  |  |  |  | 26- | - 15 |  |
| Upper West Bear | 25 |  | 1- | - | -15 |  |  |  |  |
| Clear Lake Ridge | 103 |  |  |  | 16- | - | -25 |  |  |
| Deadhorse | 78 |  | 1- | -- | 15 |  |  |  |  |

* + 1. Results from all implementation and monitoring identified as part of the proposed action, including required move-trigger and end-of-season monitoring (i.e., stubble height, riparian shrub utilization, streambank alteration), seral condition, bank stability, water temperature, sediment, and width-to-depth ration.
* Table 4 shows end of season monitoring completed. Table 5 and 6 show Long -Term monitoring on Lower Bear Gulch DMA and Deadhorse DMA. Lower Bear Gulch has data collected in 2014 and 2020, resulting in establishing a trend. Deadhorse DMA was installed and first read in 2020.

**Table 4.** Bear Gulch Allotment monitoring 2021-End of Season

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Pasture** | **Greenline**  **Stubble Height** | **Greenline**  **Stubble Height use limit** | **Bank Alteration** | **Bank Alteration use limit** | **Woody Browse** | **Wood Browse use limit** |
| Deadhorse (Trigger) | Not measured | > 6 inches |  | 20% or less |  | 40 % or less |
| Deadhorse (EOS) | 7 inches | > 6 inches | 9% | 20% or less | 18% | 40 % or less |
| Lower Bear Gulch |  | > 6 inches |  | 20% or less |  | 40% or less |

* + 1. Discussion of any unauthorized use and/or any maintenance issues related to fences or water developments.

* + 1. Review of allotment compliance with annual use indicators. For any incidences of non-compliance, describe the WWNF response per the Annual Adaptive Management Strategy in the Proposed Action.
    2. Detailed description of any adaptive management responses taken by the WWNF as part of the Long-Term and Annual Adaptive Management Strategies described in the Proposed Action.
    3. Any relevant information that becomes available regarding Snake River Basin steelhead or Snake River spring/summer Chinook salmon habitat trends and /or spawning locations that would modify the assumptions made in this opinion or result in effects not considered.
* There is no additional data to report.
* Within the Bear Gulch allotment there is only steelhead critical habitat.
  + 1. Any management recommendations for subsequent years.
* Management recommendations for following years would be:

1. Permittee completes mid-season trigger monitoring for 2023 and annually thereafter.
2. Collect EOS riparian monitoring at the Deadhorse and Lower Bear Gulch Pastures DMA on Bear Gulch Creek in 2023.
3. Report the effectiveness data that was collected at the Deadhorse (Table 6) and Lower Bear Gulch pasture DMAs in 2020. This data is summarized below (Table 5) and compared with 2014 results. As additional years are added more analysis can be completed and discussed in future reports.
4. The stream runs along a closed road, that has contributed to unstable banks and washouts that have occurred within the past 5 years. Given opportunity, stream restoration in application of large woody debris would move toward bank recovery.

Table 5. Summary for Lower Bear Gulch DMA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Indicator** | **2014** | **2020** | **Objective** | **Trend** | **Comments** |
| Average SH for all key species (in) | 7.5 | Not grazed | >6 |  |  |
| Woody Species Use (%) | 20 | Not grazed | <35 |  |  |
| Streambank Alteration (%) | 5 | Not grazed | <20 |  |  |
| Streambank Stability (%) | 71 | 61 | >90 | Negative | Declining, does not meet objective |
| Streambank Cover (%) | 68 | 21 | >90 | Negative | Significant decline in covered stable banks, does not meet objective |
| Greenline Ecological Status Rating | 75  (Late) | 70  (Late) | >52  (Upper Mid) | Static | Improving, meets objective in 2020 |
| Site Wetland Rating | 60  (FAC) | 52±2.1  (FAC) | ≥58  (FAC+) | Static | Slight decline in 2020 |
| Winward Greenline Stability Rating | 6.44  (High) | 5.48  (Mid) | >5.5  (Mid) | Static | Slight decline, does not meet objective |
| Hydric Plants (%) | 25 | 28 | ≥78 | Static | Slight increase in 2020 |
|  | Overall Trend | | Static | Slight decline | |

Table 6. Summary for Deadhorse DMA installed June 24, 2020

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Indicator** | **No prior history** | **2020** | **Objective** | **Trend** | **Comments** |
| Average SH for all key species (in) |  | No use | >6 |  | Not grazed on this date |
| Woody Species Use (%) |  | No use | <35 |  |  |
| Streambank Alteration (%) |  | 1 | <20 |  |  |
| Streambank Stability (%) |  | 78 | >90 |  | Does not meet objective |
| Streambank Cover (%) |  | 53 | >90 |  | Does not meet objective |
| Greenline Ecological Status Rating |  | 44 ±5.75  Mid | >52  (Upper Mid) |  | Does not meet objective |
| Site Wetland Rating |  | 45±3  FAC- | ≥58  (FAC+) |  |  |
| Winward Greenline Stability Rating |  | 5.48  ±.16  Mid) | >5.5  (Mid) |  |  |
| Hydric Plants (%) |  | 10 | ≥78 |  |  |
|  | **Overall Trend** | | | **Not Apparent** |  |

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