

Public Involvement – Responses to Comments on the 2026 Klamath Marsh Draft Compatibility Determination for Haying and Grazing

1. Introduction

This appendix contains all substantive comments received in response to Klamath Marsh National Wildlife Refuge Draft Compatibility Determination during the public comment period and the Service’s responses to those comments. The Draft Compatibility Determination was available for public comment for a period of 30 days from June 4, 2026, to July 3, 2026. Once the comment period was closed, all written and oral comments received on the Draft CD were reviewed and analyzed.

The USFWS received 3 comment letters during the public comment period for the Klamath Marsh NWR draft CD for haying and grazing and one oral comment. Staff read and analyzed every comment letter. Of those 3 letters, all were determined to contain substantive comments; those comments and responses are listed below in Section 5. Substantive comments are those that meet at least one of the following criteria: 1) challenge the accuracy of information presented; 2) challenge the adequacy, methodology, or assumptions of the environmental or economic analysis and supporting rationale; 3) present new information relevant to the analysis; 4) present reasonable alternatives, including mitigation, other than those presented in the document.

The Klamath Basin National Wildlife Refuge Complex and USFWS Sacramento Regional Office would like to thank everyone who submitted comments on the Draft CD. Some commentors iterated their support for the ongoing management of the Klamath Basin Complex refuge lands, and some commentors suggested refuge management improvements and changes.

2. Qualitative and Quantitative Analysis of Comments Received

2.1.1 Commentor Affiliations

Table 1. Comment Letter Total and Affiliations

Comment Document #	Commentor Affiliation
1	Klamath County Board of Commissioners
2	Western Watersheds Project, Wild Earth Guardians, and Oregon Wild
3	Private Individual
4	Center for Biological Diversity KS Wild, and Oregon Wild

Affiliation names of comments received from individual commentors are labeled “private individual”. Comment letter number 3 is a paraphrased oral comment that was received on June 23, 2026, during a phone call with USFWS staff.

2.1.2 Comment Topics

Table 2. Comment Topic and Number of Substantive Comments Received

Comment Topic	Number Received
Economic Impact Analysis	1
Wildlife, Vegetation and Aridification	5
NEPA, Refuge Purposes, Policy compliance	3
Project Operations, Staffing Capacities	5
CD Public Involvement Publishing Requirements	1

3. Summary of Changes

Compatibility Determinations and Findings of Appropriateness: Klamath Basin Complex staff performed an additional review of Klamath Marsh NWR Agricultural Uses CD and added information into the When, How and Why sections, incorporated more recent scientific literature and also updated the Final CD’s stipulations.

4. Comments and the Service’s Responses

Comment #1-1 Agriculture has long been an important part of the history, economy, and culture of Klamath County. The ranching and agricultural operations that have historically utilized portions of the refuge are not only important to local producers but also contribute to the economic vitality and working landscape of our rural communities.

The Board recognizes that properly managed grazing and haying can be compatible with wildlife conservation objectives and may provide benefits including fuel load reduction, invasive vegetation management, maintenance of open habitats, and continued stewardship of agricultural lands adjacent to the refuge. These activities have coexisted with refuge management for many years and have become an established component of the landscape.

We encourage the U.S. Fish and Wildlife Service to continue working collaboratively with local agricultural producers, grazing permittees, and community stakeholders to ensure that management decisions are informed by both conservation science and local knowledge. We

believe that maintaining opportunities for responsible haying and grazing supports the long-term sustainability of both the refuge and the surrounding agricultural community.

As the Service finalizes its determination, we encourage consideration of the economic impacts to local producers and the broader community, while continuing to balance the refuge's conservation mission and wildlife objectives.

Response: The Klamath Marsh CCP (USFWS 2010), Appendix G, Final Environmental Assessment Chapter 4, Environmental Consequences – Economy, contains a more detailed economic analysis regarding potential refuge uses and cooperative agriculture opportunities, including haying and grazing. In summary, under Alternative B the Preferred Alternative/Selected Action, the amount of haying/grazing and the resulting benefit to the regional economy was expected to have an increased economic potential compared to the other management alternatives (pp. G-58-59, USFWS 2010). The exact economic impacts from cooperative agricultural uses are difficult to predict and could vary substantially from year to year due to changing AUM numbers, grazing rates, available acreage/refuge units, interested agricultural cooperators, etc.

Comment #2-1 The National Environmental Policy Act requires preparation of an environmental impact statement or environmental assessment before the Service can use haying and prescribed grazing as habitat management tools.

Here, it is clear that FWS must comply with NEPA if it is to rely on haying and prescribed grazing on the Klamath Marsh National Wildlife Refuge (“Refuge”) as habitat management tools. Haying and grazing on National Wildlife Refuge System (NWRS”) lands are not exempt from the procedural requirements of NEPA and do not fit the definition of any of Interior’s categorical exclusions. Furthermore, while Congress has waived the requirement to carry out NEPA analysis for renewal or re-issuance of grazing permits (so long as existing permit conditions do not change) for national forest lands and public lands managed by the Bureau of Land Management, it has not provided the Service with a similar waiver for NWRS lands.

Although a compatibility determination in the absence of any implementation of the use may not require preparation of an EA or EIS, haying and prescribed grazing are not exempt from NEPA’s requirements, and the environmental effects of the two activities, in conjunction with the Service’s control, responsibility, and required approval of the program, make clear that the Service will violate NEPA if it does not prepare either an EA or an EIS prior to issuing commercial special use permits for haying and livestock grazing on Refuge land later this year.

Response: Environmental effects of haying and grazing as habitat management tools were analyzed in the Final Environmental Assessment for Klamath Marsh in conjunction with its Final CCP (USFWS 2010). The Determination of NEPA Adequacy included with the Final Compatibility Determination for haying and grazing at Klamath Marsh NWR, provides discussion about how, based on review of the existing NEPA documentation, there are no new substantive changes that are relevant to effects to the human environment that would require preparation of supplemental NEPA. Pursuant to the NEPA (42 U.S.C. §

4321, et seq.) and the DOI NEPA Regulations (43 CFR 46; 516 DM Chapters 1-4; 516 DM 8), the existing NEPA compliance is deemed adequate and no supplemental NEPA or additional agency, public, or Tribal coordination or consultation is required.

Comment #2-2 Under FWS policy, haying and grazing are not compatible uses of the Refuge because the Service lacks the resources to ensure that stipulations in a compatibility determination are met.

More than 20 years ago the Service, in its Klamath Marsh NWR Wildlife and Habitat Review (USFWS 2005), recommended that studies to evaluate “the size, shape and pattern of haying blocks and how they affect yellow rail use” of the Refuge be completed. To our knowledge, those studies have not been completed. This raises a concern that grazing and haying may have significant effects on yellow rail, but the FWS would not know it. Either the studies need to be done, or an EIS is needed to take a hard look at the risks.

...In 2010 the Service approved the Klamath Marsh Refuge CCP, which called for substantially improving “[m]anagement of emergent marsh, meadows, ponderosa pine forest, and aspen habitats . . . via use of various tools (fire, haying, grazing, herbicides, etc.) to increase habitat value for migratory birds and other wildlife.” The CCP noted that to accomplish this “[s]taffing and funding levels would need to increase.” At that time, the Service staffed the Refuge with a manager and a maintenance worker on location, with additional assistance for biological monitoring, maintenance, fire programs and other services provided by the Klamath Basin Refuge Complex Office in Tulelake, California. Regarding current staffing levels, the draft CD acknowledges an “increasingly limited staff capacity” at the Refuge. It is our understanding that for at least much of 2025 the Refuge did not have any Service staff on site, and that for 2026, the Refuge does not have an on-site manager, with the sole staff person on location a field biologist. It is clear that staffing levels have decreased at the Refuge since 2010, when the Service asserted that staffing would need to increase for the agency to responsibly rely on haying and grazing to meet the CCP’s management objectives...

The draft CD also acknowledges that additional staff would be needed to support haying and grazing. “Refuge staff are needed to administer the grazing and haying programs as they identify the desired objectives of the grazing/haying program(s), prepare CAAs and Refuge Grazing/Haying Plans, and provide coordination for grazing/haying permittees, as well as compliance monitoring.” “[T]hese activities can take up a significant portion of refuge staff time during the haying and grazing season.” The Service estimates that these work tasks would require three full-time employees spending 10-30% of their time administering the haying and grazing program. During the haying and grazing season, daily management at the Refuge would be necessary.”

Given that the Service has proposed a 20 percent budget cut for FY2027, it is irresponsible to impose on existing staff the additional administrative burden that managing a haying and grazing program would create. The Service does not, and will not, have adequate resources (funding,

personnel, equipment, and facilities) to develop, manage, and maintain a haying and grazing program for the Refuge. Therefore, it cannot determine that such a program is a compatible use of the Refuge. Further, counter to the Service Manual's direction, the stipulations in the Draft CD are not detailed and specific.

Response: As stated in the Availability of Resources section of the CD, the availability of resources and staffing is subject to increases and decreases on an annual basis. Given the amount of acreage being offered for grazing in 2026 (960 acres or about 2% of the refuge) and the limited amount of potential future grazing and haying opportunities, adequate staffing, partner support, infrastructure conditions and resources do exist to sufficiently manage the level of use as outlined in the CD. We recognize general trends in declining budgets and staffing levels constrain the frequency and magnitude of being able to allow varying refuge uses. In order to maintain refuge uses such as haying and grazing in a compatible manner, the Project Leader works with refuge staff to ensure permitted refuge uses do not exceed the capacities of refuge staffing, equipment and resources. The Service has also recently hired another refuge management/biological sciences employee to assist with all the tasks and duties at Klamath Marsh NWR, thus providing more staffing capacity. Having flexibility and utilizing refuge management professional judgement are necessary to be able to make refuge management adjustments based on staff size.

Comment #2-3 Cumulative effects and resource screening: The draft does not contain a genuine cumulative-effects analysis. This should be completed as part of an EA/EIS. It lists short-term and long-term impacts as separate sets of bullet points, but it does not analyze how those effects combine, or how they interact with the other forces acting on the same habitats. On a refuge experiencing dramatic aridification and managing through overlapping tools — haying, grazing, prescribed fire, wildfire, grasshopper response, and an active restoration program, alongside adjacent land uses — the cumulative interaction of these activities is precisely what 603 FW 2.12A(8) directs the Service to examine, including indirect effects and effects considered together with other uses of lands and waters on and adjacent to the refuge. One use on its own can contribute to substantial cumulative effects when conducted in conjunction with these other treatments and stressors. In the same vein, the draft states that it analyzes a resource only where impacts could be more than negligible, and then proceeds directly to four special-status species, without documenting which other resources were considered and set aside without analysis. Resource impacts analysis eliminated without explanation include water quality and quantity, peat soils and stored carbon, wetland hydrology, invasive-species spread, non special-status species, migratory birds (generally), cultural and Tribal trust resources, and visitor use.

Response: Please see the Final Environmental Assessment, Chapter 4, Environmental Analysis-Cumulative Effects section (USFWS 2010) for analysis regarding environmental impacts from refuge uses such as haying and grazing. We have also added more discussion into the Final CD regarding cumulative effects.

As the Final CCP/EA points out (USFWS 2010), haying and grazing are very common practices used in the grassland and sedge communities throughout the Williamson River Basin. However, the Refuge's haying and prescriptive grazing programs are unique in that they are specifically designed to maximize benefits and minimize impacts to wildlife. The programs will be evaluated by the Refuge Manager on an annual basis to determine the appropriate balance between haying, prescribed fire, and prescriptive grazing to ensure that the cumulative effects of these treatments are consistent with Refuge habitat management goals. See comment response #4-3 for annual acreage limits on sedge and grassland habitat treatments. This program will also be evaluated when necessary against unanticipated or cyclical impacts that can result from events such as wildfires, extreme weather conditions (drought/flood) or grasshopper outbreaks. The program must retain flexibility to respond to these types of events; for example, if a wildfire or grasshopper outbreak impacts part of the refuge's grass, sedge, and marsh communities, haying, prescribed fire, or prescriptive grazing acreage goals may be reduced or eliminated in that year. Haying may occasionally be used in conjunction with prescribed burning to create fire breaks.

Haying and grazing affect the sedge, grassland and short-emergent vegetation communities. Using both of these habitat management tools ensures the Service meets specific habitat management objectives in the CCP. Adverse impacts of haying and grazing programs are evaluated as part of this compatibility determination and prior to issuing Special Use Permits to insure that long-term benefits continue to be realized for the wildlife species utilizing those habitats. Most of the Refuge is closed to public access, and therefore cumulative impacts with recreational uses are expected to be minimal. Refuge administrative activities, such as water management, construction, and maintenance are minimal during haying or grazing seasons and, therefore, any cumulative impacts are expected to be minimal (USFWS 2010).

No major indirect or secondary wildlife or habitat effects are anticipated. However, potential minor indirect/secondary effects of the programs include temporary loss of forage and cover for some wildlife species; potential introduction of invasive plant species (seeds) from permittee's equipment or livestock; potential for fuel, diesel, or other contaminant spills; and the potential to create an economic dependency of permittees on Refuge haying resources. However, if unanticipated adverse effects are realized, operations will be modified, redirected, or ceased if necessary to limit negative impacts (USFWS 2010).

Comment #2-4 Monitoring and adaptive management: The monitoring and adaptive-management provisions warrant strengthening, because the principal risk is the removal of residual nesting cover from yellow rail and sandhill crane habitat. The draft states a single quantitative limit, that grazing may not remove more than fifty percent of senescent vegetation, and otherwise relies on general assurances that staff will monitor conditions. It does not provide a monitoring protocol, sampling design, or measurable metrics; it does not identify the adaptive-

management responses that follow when thresholds are approached or exceeded; and it does not cite the scientific basis for the fifty-percent figure. As noted above, the refuge lacks staff resources to administer the haying and grazing program. This includes monitoring duties.

Because 603 FW 2.12A(11)(b) requires monitoring sufficient to evaluate compliance with the stated conditions and swift corrective action when serious deviations occur, the monitoring design is in effect the stipulation for this use, and it should be specified. An EA/EIS should state what is measured, where, how often, and by what method; the residual-cover thresholds and their source; and the specific management responses triggered when those thresholds are reached. Tying the monitoring directly to the habitat objectives in the Comprehensive Conservation Plan, and to the needs of yellow rail and sandhill crane in particular, would give the stipulations the specificity the policy requires. Again, staffing is needed to implement a monitoring program.

Response: Please see response to comment #2-2 for a discussion on staffing capacity. Data and monitoring studies regarding greater sandhill cranes, yellow rail, Oregon spotted frog and their habitat conditions are ongoing at the Refuge. Current species count data and ongoing habitat monitoring information does help inform refuge staff on an ongoing basis when making management decisions, such as where and when to offer grazing and haying. The Refuge would adapt accordingly if staff decide to offer haying and grazing in areas where special species of concern are present and could be adversely affected. There is a new refuge management/biological sciences staff member that will be checking the grazed area and monitoring it to ensure habitat/vegetation condition prescriptions are being met. The Service is following USFWS survey protocols pertaining to Oregon spotted frogs and yellow rail monitoring.

Comment #2-5 Best available science on species effects: The draft's literature base ends in 2003, with the 2010 Comprehensive Conservation Plan as the only later document, even though substantial science on the effects of haying and grazing has accumulated since then for every species the draft identifies. The Endangered Species Act requires the Service to use the best scientific and commercial data available (16 U.S.C.1536(a)(2)), and a reevaluation under 603 FW 2.11H is the appropriate vehicle to bring the analysis current.

The most consequential gap concerns the Oregon spotted frog. The draft's frog analysis rests entirely on pre-listing sources — Licht (1971), Leonard (1997), Hayes and colleagues (2000), Pearl and Bury (2000), and Watson and colleagues (2003) — and draws its central conclusion that grazing and haying may benefit the frog from a single Washington dairy-pasture study.

Since 2003, the Service has listed the species as threatened on August 29, 2014, designated critical habitat on May 11, 2016, and in 2024 issued both a Species Biological Report and the first final Recovery Plan, signed July 19, 2024. Those recovery-era documents, together with a Recovery Implementation Strategy that addresses grazing, hydroperiod, and herbicide tradeoffs, and basin-specific grazing guidance developed for the Jack Creek system within the Klamath Basin, are the most authoritative current sources on grazing effects and water management for

this species, and none of them is cited. Because the compatibility finding rests in part on a 2016 informal consultation that predates these materials, and because the reinitiation standards at 50 CFR 402.16 are arguably met by the subsequent critical-habitat designation and the new recovery information, the Service should complete or refresh Section 7 consultation before issuing permits, expressly incorporating the 2024 Species Biological Report and Recovery Plan, the final critical-habitat designation, and the Klamath Basin grazing guidance.

The yellow rail analysis is likewise built on aging sources, principally Popper and Stern (1996–2000) and Bookhout (1995). It omits the updated species account by Leston and Bookhout (2015), which superseded the 1995 account the draft relies upon; the directly relevant synthesis of management effects by Goldade and colleagues (2002), titled “Effects of Management Practices on Wetland Birds: Yellow Rail”; and more recent occupancy and landscape work documenting contraction of the species’ range along its southern edge — the very edge the Klamath Basin colony occupies, and which the refuge’s own records describe as the largest such population in the basin. The draft also acknowledges that the 2005 refuge review recommended studying how the size, shape, and pattern of haying blocks affect yellow rail use, yet there is no indication that this study was ever completed, and the draft does not fill the gap with the available regional literature. Because the draft concedes that haying reduces the residual cover yellow rails require for nesting, the residual-cover and block-configuration stipulations are central to the compatibility finding, and they should be grounded explicitly in the updated species account and the management-effects synthesis rather than in twenty-five-year-old local reports.

Yellow rails require large blocks of intact cover habitat next to hayed sites. Enforcement of this need requires a stipulation identifying specific parameters (time, place, size) for haying blocks. There is also a need for a stipulation that requires that at least 50 percent of senescent vegetation remains after grazing, as removal of a greater amount would adversely affect the species.

The bald eagle section similarly relies on nest counts from 2005 and 2006 and does not reference the post-delisting management framework or the disturbance standard under the Bald and Golden Eagle Protection Act and the National Bald Eagle Management Guidelines. Those data should be refreshed and the operational timing and buffers confirmed against the current disturbance standard, so that the eagle analysis reflects the framework that now governs the species rather than its pre-delisting status.

Response: The Service has revised the Final CD with scientific literature updates and prepared an updated Section 7 Biological Evaluation. Both documents incorporate more recent data, such as the 2024 Species Biological Report and Recovery Plan to reflect these suggestions. The monitoring that is currently being done on the refuge for yellow rail populations has increased in the last few years. Robust yellow rail studies and monitoring by refuge partners and staff are actively ongoing, and that information is being used by refuge staff on an ongoing basis for making management decisions, including determining the locations and timing for allowing grazing. USGS and USFWS

staff are doing studies on Oregon spotted frog egg mass counts. Please see the response to the previous comment #2-4 for more discussion on monitoring and staffing efforts and expectations. Please also see the Section 7 Biological Evaluation included with the Final CD as it determines these species are not expected to occur in the project action area.

Comment #2-6 Climate change, aridification, and restoration: The draft describes rapid and dramatic aridification of the historical lakebed but it does not carry that trajectory into the effects analysis. All three sensitive species — the Oregon spotted frog, the greater sandhill crane, and the yellow rail — depend on shallow water, and a continued drying trend over the ten-year term of the determination changes both the impact for each species and the risk of persistent peat fires. The active restoration program is itself new information that reshapes where and whether these uses are appropriate, a point the draft handles for 2026 through exclusion north of Military Crossing but does not analyze going forward.

Consistent with Service planning policy at 602 FW 3, which directs analysis of plausible future conditions including climate change, and with the requirement at 603 FW 2.12A(8) to consider reasonably foreseeable effects over the life of the determination, the EA/EIS should include an explicit analysis of how the drying trajectory and the restoration program interact with the use and with each species' water-dependent habitat needs, and of how the determination will adapt as conditions change. Oregon's own drought assessments indicate that declining Klamath Basin water levels are already consequential for nesting cranes and for amphibians that depend on water throughout their life cycle, which underscores why this analysis belongs in the determination rather than being left to annual permit decisions.

Response: When properly managed and monitored, offering haying and grazing as refuges uses are not expected to amplify these adverse impacts that your comment addresses. We adjust the area grazed and/or hayed annually based on conditions on the refuge. For example, during severe drought conditions, after larger fires, or years with high clear-winged grasshopper populations, we may graze little or no acres. The CD also excludes grazing north of Military Crossing until after the Williamson river/marsh habitat restoration is implemented and post-restoration conditions have been assessed. For further information regarding future condition analysis and foreseeable effects, especially pertaining to CCP or NEPA policy, please see response to comment #2-3, the 2010 Final CCP/EA (USFWS 2010), and the Determination of NEPA Adequacy included with the Final CD for discussion on NEPA compliance.

Comment #3-1 It would be useful and beneficial to have an earlier start date for grazing on the refuge, sometime in early July would be preferable. Yellow rails on the refuge would not be impacted by an earlier entry date for cattle grazing.

Response: The Service decided to keep the August 10th entry dates for haying and grazing in the Final CD to stay consistent with the Final CCP/EA (strategy 4.1.4, USFWS 2010) and because it is expected to be a safe date for turning cattle out while

minimizing potential impacts to nesting birds. Keeping the haying and grazing entry in early August increases the likelihood that the majority of nesting birds have hatched, thus limiting potential negative impacts to nesting species. Additionally, although nesting season may be winding down, juvenile nesting birds in the early developmental stages are more susceptible to trampling or other unintended mortality events due to their limited mobility. Depending on the year and water availability, the duration of flood surface water inundation can vary dramatically, so by keeping an early August entry date there is a greater likelihood that soil impacts by cattle movement on saturated soils are minimized.

The Oregon State Wildlife Action Plan indicates that sandhill cranes are sensitive to disturbance and reductions in habitat quality, quantity, and size due to factors including livestock grazing. Agricultural practices, such as grazing, can limit nesting. The State Wildlife Action Plan recommends minimizing disturbance during the breeding season (April 15-July 31) at known nesting areas (ODFW 2026). Grazing and haying operations would not begin until August, which would avoid disturbance during this sensitive window.

The entry dates in later summer also provide refuge staff time to evaluate conditions within grazing units and work with selected permittees on establishing temporary fencing, access and egress options, or other adjustments within the scope of the special use permit to ensure maximum benefit to the cooperator and the desired habitat conditions.

Comment #4-1 Ultimately, grazing and haying within the Klamath Marsh National Wildlife Refuge are incompatible with the Refuge’s purpose and The Center, KS Wild, and Oregon Wild urge the Service to make this determination. In marsh systems such as Klamath Marsh, these impacts can reduce habitat quality for migratory birds by decreasing vegetative cover used for nesting, increasing nest predation by reducing concealment, degrading shallow-water foraging habitat, reducing aquatic invertebrate abundance that supports waterfowl and shorebird reproduction, and accelerating conversion of wetlands to drier vegetation communities. Livestock also introduce nutrients, pathogens, and sediment into aquatic systems, contributing to poorer water quality and altering aquatic food webs.

If the Service proceeds with a finding of compatibility, the Center recommends, at a minimum, that the Service take the following actions in revising the Draft CD:

1. Add specific limitations and mitigation measures to ensure that haying and grazing do not damage habitat and wildlife.
2. Conduct a more thorough analysis for endangered and threatened species and species of concern on the Refuge and provide greater protection for those species.
3. Conduct an analysis for pollinators on the Refuge and provide protection for such species.

4. Provide for more extensive oversight of haying and grazing on the Refuge.
5. Impose enforceable stipulations for equipment type, equipment cleaning, and livestock containment.
6. Evaluate the potential hydrological impact of haying and grazing.
7. Evaluate less disruptive alternatives and less harmful methods within grazing and haying practices.
8. Provide greater public notice by publishing the Draft CD in the federal register and regional and local outlets.

Response: Please see the following comment responses (#4-2 through #4-8) regarding these suggestions.

Comment #4-2 The Draft CD lacks sufficient limitations and improperly relies on special use permits to supply essential compatibility safeguards....the Draft CD fails to include clear, enforceable limitations and conditions on these uses, making them incompatible with the Klamath Marsh National Wildlife Refuge.

The Draft CD currently contains minimal, generalized conditions, which are heavily reliant on future actions that post-date the final Compatibility Determination, failing to satisfy the Service's obligation to provide detailed stipulations that ensure compatibility. Despite the recognition that grazing and haying can have both adverse and beneficial effects on wildlife and habitat, the Draft CD only includes minimal, generalized conditions to address such harms. The Draft CD sets forth "Stipulations Necessary to Ensure Compatibility," However, these stipulations rely heavily on future actions, including the completion of Section 7 consultation under the ESA, review of the CCP, and development of special use permits to fill in key details, which would post-date the final Compatibility Determination. These placeholder references do not satisfy the Service's obligation to provide stipulations to ensure compatibility. Further, these stipulations lack specificity, failing to address any of the recognized potential harms of grazing and haying to wildlife and habitat, and thereby do not meet the Service's obligation for detailed and specific stipulations.

These stipulations and the entire Draft CD do not ensure that the implementation of grazing and haying would be compatible, rather they leave core parameters undefined and subject to permit-by-permit discretion. Without such constraints, the Service cannot properly assess whether implementation of grazing and haying will be compatible with the purpose of the Refuge. For example, the Draft CD states that "to meet habitat management objectives" "[r]efuge staff will consider grazing and haying on an annual basis." In elaborating on this point, the Draft CD states that "[e]xact haying and grazing locations [will be] determined... based on habitat conditions, benefits and impacts to wildlife, water levels, accessibility, and other factors," but does not provide clear and obligatory parameters, practices, or policies for this determination. While the

Center appreciates the need for flexibility, the proposed stipulations must set forth meaningful parameters and constraints for future decision-making and fail to ensure special use permits will comply with the practices set forth in the CCP and Draft CD to protect wildlife and habitat.

Where uncertainty surrounding a use precludes the development of adequate, enforceable stipulations, the Service must find that use incompatible. See 603 FW 2.12(A)(11). If uncertainty here does not preclude these uses, the Service should, at a minimum, revise the Draft CD to include sufficient stipulations to ensure protection for wildlife and habitat during location determinations.

Another deficiency is shown in the Draft CD's treatment of grazing timing. The Draft CD states that "[w]ith the right timing and amount of grazing pressure" wildlife habitat can thrive, Draft CD at 5, but does not expressly limit or condition the timing or intensity of grazing. The Draft CD notes that the "optimal time for grazing typically begins in August... [and] may continue through November," but then provides that "specific dates are determined by the refuge manager and the permittee." This language does not create an obligatory timeframe in which the refuge manager and permittee must follow. Without enforceable constraints, the Draft CD fails to guard against acknowledged risks of early grazing, including nest destruction and disturbance or mortality of migratory birds and their young. The Draft CD should be revised to include explicit, mandatory timing restrictions on grazing activities.

The Draft CD is similarly deficient with respect to spatial limitations. Although the Draft CD discusses guidance from the CCP on maximum annual acres allowed to be treated and how often treatment should be used, it does not incorporate those limits as binding requirements. In contrast, the prior Compatibility Determination expressly incorporated the CCP limitations by stating "[t]his compatibility determination authorizes haying and prescriptive grazing based on habitat conditions and acreage guidelines established by the [CCP]." The Draft CD should be revised to incorporate the CCP's limitations in mandatory terms and to explain any deviation from the Environmental Assessment's ("EA") recommendations, including the 8,200-9,200-acre cap on acres treated annually. Without enforceable acreage limits, the scope of these uses remains effectively unconstrained.

The Draft CD also fails to provide adequate protection for sensitive habitats. While it generally limits the habitat type in which grazing and haying may occur, it does not stipulate sufficient spatial limitations within those habitat types to protect sensitive ecosystems such as wetlands and riparian areas. The Draft CD provides one spatial limitation by excluding grazing and haying from "northern restoration areas until the restoration phases have been fully implemented and there has been time to evaluate post-restoration conditions." However, the Draft CD fails to discuss what criteria the post-restoration evaluation will be based on and does not include further protective measures for sensitive ecosystems within these northern restoration areas, if they were deemed open to grazing and haying.

The Draft CD also fails to detail how damage from livestock will be prevented and limited in riparian and wetland ecosystems and areas that contain listed species, in spite of significant scientific data documenting damage from livestock use of riparian and wetland ecosystems, including soil compaction, excessive streambank erosion, elevated soil and water temperatures, increased runoff, sedimentation, elevated concentrations of dissolved solids and fecal bacteria, and a decreased ability for wetlands to retain water. The Draft CD fails to exclude livestock from these areas and prescribe any mitigation measures sufficient to prevent such impacts. The Draft CD also lacks specific mitigation measures or restrictions on grazing and haying in areas in which protected, endangered, or priority species may be present.

Ultimately, the Draft CD's lack of specific stipulations and reliance on special use permits to supply essential details renders these uses contrary to law. A particular permit's mitigation measures could make the difference between any such use serving as a compatible management tool versus a use that harms wildlife and habitat. Hence, absent inclusion of more express requirements and limitations in the final Compatibility Determination, it is entirely possible that future permits will allow for an approach to grazing and haying that is not compatible with the Refuge's purpose, in violation of the 1997 Refuge Act. Accordingly, at a minimum, the Service must revise the Draft CD to include detailed, enforceable stipulations that apply to all special use permits, including restrictions on grazing intensity, frequency, and duration, categorical exclusion of wetland and riparian areas, and caps on the total allowable acreage of haying and grazing on the Refuge.

Response: We disagree that the CD's stipulations and management mitigation measures are inadequate. For example, one of the most important limitations outlined in the CD is the specific dates allowed for grazing on the refuge (August 10-November 30) because of how that timing relates to refuge purposes of providing habitat for wildlife. Please see the When, Why and How sections of the Final CD about how grazing and haying are tied to meeting desired wildlife habitat conditions as outlined in the Final CCP/EA (USFWS 2010). The Service has updated the Timing and Zoning stipulation in the Final CD to include the stipulation that the Refuge will not allow grazing or haying to occur in sensitive riparian areas.

Comment #4-3 The Draft CD fails to adequately evaluate and prevent potential harm of grazing and haying to listed species and species of concern...the Draft CD fails to demonstrate that grazing and haying will align with the National Wildlife Refuge System's mission or the Refuge's goals relating to the conservation and restoration of endangered species.

Although the Draft CD emphasizes potential habitat benefits of grazing and haying, it fails to meaningfully analyze and mitigate their well-documented adverse impacts on wildlife, including listed species. By briefly listing the negative effects of grazing and haying, the Draft CD does not properly address the serious harms these activities can have on important habitat.

Native grasslands and wet meadows surrounding Klamath Marsh provide essential nesting habitat for ducks, geese, cranes, rails, sparrows, raptors, and numerous other migratory birds. Haying removes vegetation needed for nest concealment, eliminates cover for young birds, and can directly destroy nests and eggs when conducted during the breeding season.

Even when delayed until later in the summer, haying reduces residual vegetation needed by wildlife throughout the year. Residual cover provides important winter habitat, protects soils from erosion, supports small mammals that serve as prey for raptors, and maintains plant diversity. Repeated haying also favors disturbance-tolerant plant species, while reducing native plant diversity that supports pollinators and other wildlife.

Excessive grazing can cause soil erosion, damage streambanks, degrade vegetation, contaminate waterways with fecal waste, disrupt migration, introduce invasive species, cause habitat fragmentation, and alter food supplies for and predation pressure on wildlife. Moreover, studies comparing grazed and ungrazed tracts demonstrate that grazing reduces nesting success and the likelihood of nesting attempts the following year by removing and trampling residual cover. For example, research conducted at Malheur National Wildlife Refuge in Oregon found higher nesting success for greater sandhill cranes in ungrazed and unmowed fields compared to grazed fields. Haying can also be harmful to ground-nesting birds because it reduces residual cover essential for nesting the following spring.

Despite these well-established risks, the Draft CD does not include species-specific stipulations or protections, heightening the risk that grazing and haying will jeopardize such species, conflicting with the purposes of the Refuge. It completely fails explain how grazing and haying would not detract from Klamath Marsh’s purpose to “conserve[e] and protect[] fish and wildlife resources,” “conserve[e][] wetlands,” and to “use of inviolate sanctuary, or for any other management purpose, for migratory birds,” indicating that it is essentially authorizing incompatible uses.

In addition to temporal and spatial limitations, other potential mitigation measures outlined in the CCP have been ignored. For example, the CCP states that “if grazing is applied to [yellow] rail breeding habitats, it should not occur until after mid-August and should be relatively light.” Yet the Draft CD does not impose any stipulations on the amount of grazing in areas where yellow rail birds are found.

The lack of species-specific protections is especially concerning given the presence of numerous listed species on the Refuge, including the northern spotted owls, shortnose and Lost River suckers, bull trout, Applegate’s milk-vetch, and the Oregon spotted frog; to name a few. The Refuge is also utilized by species proposed to be listed under the ESA, including the northwest pond turtle and supports other legally protected species and species of concern, including bald eagles, greater sandhill cranes, and yellow rails. Although the Draft CD excludes grazing and haying from Oregon spotted frog habitat for 2026, it provides no long-term protection and

instead defers to ongoing intra-agency consultation. This temporary measure does not ensure compliance with the ESA or prevent harm to the federally listed species.

Likewise, there is no stipulation requiring surveys or avoidance measures for protected plant species, such as Applegate's milk-vetch. Without surveying for endangered plants, individuals can easily be destroyed in grazing or haying tracts.

The Draft CD also fails to provide a meaningful discussion of harms posed to listed species and species of concern by haying and grazing and how it plans to mitigate those harms. The Oregon spotted frog, bull trout, and the shortnose and Lost River suckers all rely on stream and riparian ecosystems. These ecosystems are highly vulnerable to livestock trampling, which can cause changes and reductions in vegetation, elimination of riparian areas by widening channels, sedimentation, and streambank erosion. These impacts degrade, or reduce, habitat necessary for these protected species. They also contribute to broader ecological degradation, including lowering water tables and thereby increasing aridity, a condition already affecting the Refuge. Trampling also increases stream turbidity, causing a decrease in photosynthesis, which then reduces productivity, aquatic insect production, and food sources for species such as amphibians and fish. Additionally, the removal of vegetation cover increases stream temperatures, effecting cold water fish species like bull trout. In fact, one of the main factors contributing to the decline in native trout in the west is the collapse of streambanks caused by livestock grazing. These effects are compounded by the high grazing rate such areas experience as livestock congregate along streams for shade, more succulent vegetation, and drinking water.

Beyond ecological harms, these impacts undermine wildlife-dependent recreation. One of the principal impacts of damaged streams is the reduction in wildlife observation and fishing. The Draft CD, in prioritizing grazing over wildlife-dependent recreation without explanation, is contrary to the 1997 Refuge Act, which states "wildlife-dependent recreational uses are the priority general public uses[]... and shall receive priority consideration in refuge planning and management."

Protecting these species and their habitat must be a top concern for the Service. The Draft CD attempts to address wildlife conflicts by instructing refuge staff to "delay the initiation of operations both by time or day and date," in the event of "a significant wildlife conflict," but fails to define "a significant wildlife conflict" and provides no procedures for monitoring by staff, failing to ensure protection of wildlife if grazing and haying were implemented.

Given these deficiencies, the Service cannot reasonably conclude that grazing and haying will not materially interfere with or detract from the Refuge's purposes regarding wildlife. The Center therefore urges the Service to find these uses incompatible.

At a minimum, if the Service proceeds with a compatibility finding, it must substantially revise the Draft CD to include enforceable, species-specific protections, including clear spatial exclusions for wetlands, riparian areas, and known habitat and nesting areas for listed species

and species of concern, pre-activity surveys and avoidance requirements for protected plants and wildlife, and clear monitoring and response measures for wildlife conflicts.

Response: For 2026, the Service is only offering grazing on a small proportion of the refuge (about 2%). In general, to meet CCP objectives, no more than 25 percent (or up to 3,500 acres) of sedge marsh would be treated every 3 to 5 years and no more than 20% (or up to 2,200 acres) of grassland/wet meadow will be treated on a 3- to 5-year rotation to achieve desired vegetation conditions. (USFWS 2010). Species plausibly located within the general vicinity of the project action area are analyzed in the Section 7 biological evaluation. The Service has included a stipulation in the Final CD to require future Section 7 compliance if adverse impacts to species are expected if/when grazing opportunities are offered in additional locations, and another stipulation not allowing grazing in riparian zones. Further species-specific stipulations are not necessary to include if the general limitations on grazing and haying timing and locations are sufficient to minimize impacts and if adverse effects to those species are not expected. To name a few examples, the CD does limit what habitats are grazed/hayed, the timing and duration of haying and grazing, and where grazing and haying are allowed. The limitations and stipulations of haying and grazing found in the CD, Special Use Permits and Final CCP are effective at avoiding and minimizing impacts; species-specific stipulations are unnecessary. Please see response to comment #4-2 and 4-4 for more of a discussion on this subject.

Comment #4-4 The Draft CD fails to evaluate and protect pollinators. The Draft CD fails to evaluate the impacts of grazing and haying on pollinators, despite the statutory obligation to conserve wildlife. Pollinators are a critical component of these resources and must be considered in any compatibility determination.

The Refuge supports federally and state listed pollinators and species of concern, including the federally listed Franklin's bumble bee, the state listed Mardon skipper, and species proposed for federal listing, such as the monarch butterfly and Suckley's cuckoo bumble bee. Yet the Draft CD does not mention pollinators at all, nor does it assess how grazing and haying may affect these species or their habitat.

This omission is significant. Pollinators have experienced widespread and well-documented declines, with studies estimating that, in the past decades, up to 40% of pollinator species have declined. Grazing and haying can negatively impact pollinators by removing floral resources, trampling, and consuming or destroying eggs that have been deposited on plants. The Service should identify and require protections for pollinators.

By failing to analyze these impacts, the Draft CD fails to meet requirements for a compatibility determination. The Center recommends that the Service revise the Draft CD to include a thorough evaluation of pollinators on the Refuge and their vulnerability to grazing and haying. If, after such analysis, the Service does not conclude these uses are incompatible, it should

incorporate enforceable, pollinator-specific stipulations designed to support and protect pollinators within the Refuge, with special attention to listed species.

Response: Please refer to the Section 7 Biological Evaluation and response to comment #4-3 for discussion on potential impacts to Federally listed, proposed or candidate species of concern and their critical habitat (if applicable). Franklin’s bumble bee is not known to occur within the project area; within southern Oregon the species is known to occur in Douglas, Jackson, and Josephine Counties (Thorp 1999, p. 3; Thorp 2005). The overall amount of acreage grazed or hayed on the Refuge is limited to habitat management objectives outlined in the Final CCP/EA (USFWS 2010), see comment response prior to this one for exact acreage totals. For 2026, we are offering only a small portion of the refuge (960 acres or approximately 2%) to grazing. The offered grazing areas, including the Rail Unit, consist mainly of grass and sedge plant species, and they are not known to contain an abundance of pollinator plants. Much of the vegetation sedge and grass species are Nebraska sedge (*Carex nebraskensis*), meadow sedge (*Carex praeegracilis*), beaked sedge (*Carex rostrata*), common spikerush (*Elocharis machrostachya*), meadow rush (*Juncus nevadensis*), hardstem bulrush (*Scirpus acutus*), reed grass (*Calamagostis inexpansa*), swamp bluegrass (*Poa Sp.*), tufted hairgrass (*Deschampsia caespitosa*), squirrel tail (*Sitanion hystrix*), and cheat grass (*Bromus tectorum*) (USFWS 2010).

Targeted grazing, along with haying and prescribed fire, is one of the primary habitat management tools the Service utilizes to manage sedge meadow/grassland habitat to increase structural diversity, remove decadent vegetation, and prevent forest encroachment. Haying and grazing are often the most available tools to the refuge manager as using prescribed fire on the refuge presents additional complexities and risk, depends on increasingly limited staff capacity, requires suitable fuel moisture/loads, and needs appropriate weather conditions. Furthermore, the organic peat soil of Klamath Marsh NWR will continue to burn for months after a surface fire is extinguished thereby imposing additional risks. Organic peat soil fires are difficult to extinguish and can ignite future wildfires outside of fire control lines.

Grazing, like haying, has been conducted on refuge land for many years prior to and since the Klamath Marsh NWR’s establishment (USFWS 2010). Prescribed grazing and haying practices serve as habitat management treatments to open dense stands of vegetation, set back marsh plant succession (convert from a late successional to an early successional plant community), and remove or reduce invasive plants. This results in the creation of a diverse mosaic landscape of open water and vegetation, thereby providing improved foraging and habitat conditions for migratory birds and other wildlife species. Though no habitat management plan is in place, the CCP provided a detailed framework and clear limitations on how grazing would be used to achieve habitat management objectives. The refuge manager and complex biologists determine the locations and timing of prescribed grazing based on these guidelines in conjunction with an annual

review of habitat conditions, benefits and impacts to wildlife, water levels, accessibility, and other factors.

In general, areas that have been grazed or hayed have provided good to excellent spring migration habitat and summer nesting areas (general observations by Refuge Complex biologists, Refuge staff, and from Refuge annual narrative documents 1958–1998). The removal of dead or decadent grass material and the creation of short stubble vegetation can be beneficial to some plant species and certain wildlife species. Grazed and hayed areas, if flooded in spring or fall, also provide valuable open water habitat in which a diversity of waterbirds feed and rest. Areas of open water have significantly declined within the Refuge during the past 150 years due to changes in hydrology, land use practices, and plant successional patterns (USFWS 2010).

Comment #4-5 The Draft CD contains inadequate oversight and monitoring measures. A compatibility determination must provide for adequate oversight of a proposed use. According to the Service’s policy for determining compatibility, “[m]onitoring of the use must be sufficient to evaluate compliance with stated conditions and swift action must be taken to correct or respond to any serious deviations.” Absent adequate monitoring, a user (such as a livestock owner) may repeatedly violate conditions on a particular use, which in turn may damage habitat and wildlife.

The Draft CD not only fails to establish adequate oversight mechanisms or monitoring measures, but also completely ignores those specific requirements included in the prior Compatibility Determination. It states that “[s]ites to be hayed or grazed will be monitored by refuge staff to ensure there are no conflicting wildlife or habitat issues. Daily activities will be monitored by refuge staff.” By contrast, the prior Compatibility Determination included specific requirements, such as deadlines for removal of hay bales and equipment and prohibitions on new road construction. The Draft CD fails to even address these requirements. It also fails to incorporate recommendations from the EA to recommend basic common sense measures, such as limiting or eliminating haying and grazing in “[y]ears with severe impacts from clear-winged grasshopper outbreaks or wildfire[s].” This is completely inadequate and lacking in any meaningful compliance checks. The absence of meaningful monitoring requirements is especially concerning in light of the Refuge’s acknowledged staffing constraints. Without sufficient personnel and clearly defined monitoring obligations, it is unlikely that grazing and haying activities will be consistently or adequately overseen. Without routine monitoring, activities like haying and grazing can quickly become harmful to wildlife and habitat. Experience from other refuges demonstrates that insufficient oversight can allow harmful practices to persist, resulting in ecological damage.

The presence of grazing and haying requires careful implementation, and careful implementation is not possible without adequate oversight and monitoring of these activities on the refuge. The absence of enforceable monitoring obligations prevents the Service from ensuring these uses will remain compatible. Where the Service cannot guarantee adequate oversight, it cannot reasonably conclude that a use will not materially interfere with the purposes of the Refuge.

Accordingly, the Service should determine grazing and haying to be incompatible uses. If these uses are authorized, the Service, at a minimum, should revise the Draft CD to include detailed and enforceable monitoring measures, including regular surveys of ongoing uses and inspection of livestock management infrastructures, such as fences. Monitoring mechanisms should provide refuge managers with up-to-date information about the conditions on refuge habitats as haying and grazing “are used to enhance refuge habitats for the benefit of wildlife and native plant communities.”

Response: Please see comment responses #2-2, 2-4, 2-5, and 4-5 for a discussion on staffing capacity, stipulations, oversight and monitoring efforts. We believe the proposed monitoring efforts and the conditions outlined in the CD are adequate for ensuring haying and grazing on the refuge are compatible uses, and they contribute to refuge purposes and the NWRS mission.

Comment #4-5 The Draft CD lacks operational controls to minimize harm from grazing and haying. The Draft CD fails to include basic operational controls needed to minimize the risks associated with grazing and haying. For example, the Draft CD does not restrict the types of equipment that may be used on the Refuge. The Draft CD also makes no effort to evaluate the potential harms various equipment types may cause, particularly to sensitive areas, nesting birds, listed species, and pollinators. The Center urges the Service to revise the Draft CD to include restrictions on equipment types allowed on the Refuge, particularly in wetlands, riparian areas, and other sensitive habitats.

Moreover, the Draft CD does not impose adequate safeguards to prevent introduction and spread of invasive species from haying, grazing, and the equipment used for these practices. Livestock are well documented vectors for invasive plant spread through fur, hooves, manure, and transportation corridors. Disturbance associated with grazing creates bare ground that is highly susceptible to invasion by nonnative species. Once established, invasive plants frequently reduce habitat quality, alter fire regimes, and require expensive long-term control efforts. Because Klamath Marsh is one of Oregon's largest intact freshwater wetlands, protecting its native plant communities should be a management priority.

According to the United States Forest Service, the vegetation that clings to the undercarriage or underbody parts of equipment may also carry seeds and spores that can spread noxious weeds, invasive species, and disease. While the Draft CD acknowledges the potential of equipment introducing invasive species and mandates permittees “to arrive with clean equipment,” it does not provide any mechanism to verify compliance or enforce this requirement. Without inspection protocols or compliance verification, this requirement is effectively unenforceable and does little to advance the Refuge’s goal of reducing invasive plant cover. The Center recommends that the Service requires documented cleaning procedures and implements inspection requirements prior to equipment entering the Refuge.

The Draft CD also fails to require adequate fencing or livestock containment measures even though livestock fencing is critical to prevent direct mortality of listed species, especially amphibians. Although the Draft CD recognizes that fencing can reduce trespass grazing and associated habitat damage, it does not impose any obligation on permittees to install and maintain fencing. This omission is inconsistent with the CCP, which states that “[g]razing permittees are now required to install and remove electric fences on an annual basis at desired grazing locations.” Without enforceable fencing requirements, livestock may stray into sensitive or excluded areas, increasing the risk of trampling and habitat degradation. The Draft CD must be revised to include these requirements as binding stipulations to protect wildlife and habitat.

These omissions demonstrate that the Draft CD lacks the basic operational controls necessary to minimize harm and ensure that grazing and haying can be conducted in a manner consistent with the Refuge’s purposes. Without such controls preventing adverse effects on wildlife, the Service cannot conclude that these uses are compatible. At a minimum, the Draft CD should be revised to include enforceable operational safeguards, including equipment restrictions, equipment cleaning protocols, and livestock containment requirements.

Response: Conditions outlined in the Special Use Permit ensure such impacts to wildlife species are mitigated. Equipment requirements for grazing operations are minimal and often involve travel from adjacent landowners. Historically, many grazed areas were surrounded by permanent fences that were remnants of the former landowners. Most interior fencing has been removed on Klamath NWR to reduce maintenance requirements, remove obstructions to wildlife movement, and improve the overall viewshed for visitors (USFWS 2010). Klamath Marsh NWR staff have long worked with neighboring landowners and previous grazing permittees to maintain fencing enclosures. Refuge staff have also spent considerable time, resources, and effort to repair the remaining wildlife-friendly fences to limit trespassing opportunities into sensitive refuge units. The many miles of boundary fence are in constant need of maintenance and repair; the fencing is easily damaged by snow load, wildfire and wet habitat conditions. Stipulations in the SUP require the cooperator to provide sufficient fencing enclosures (virtual, electric and wire) to contain their cattle. The Service strives to limit unnecessary fencing across the refuge in order to limit impacts to native wildlife and their ability to cross refuge land.

Comment #4-6 The Draft CD should evaluate the hydrological impacts of grazing and haying. Water resources are crucial to the Refuge’s emergent marsh and wet meadow ecosystems. The Refuge has already experienced “rapid and dramatic aridification of the historical lakebed, which has resulted in changes to the water and nutrient budget of the Williamson River and Upper Klamath Lake.” Prolonging the surface water hydroperiod to enhance shallow groundwater conditions is essential to the hydrologic restoration of Klamath Marsh.

Although the Draft CD excludes grazing and haying from the northern restoration areas, it fails to:

- analyze the direct or indirect hydrological impacts of these uses on the Refuge;
- analyze whether these uses would impact existing restoration efforts;
- instruct the Refuge Manager to consider water use issues in permitting decisions; and
- discuss what changes will be made or alternatives pursued in consideration of seasonal variations in water availability.

This lack of consideration undermines the Service’s assertion that agriculture would support the “enhance[ment of] refuge habitats for the benefit of wildlife and native plant communities.” Without such analysis, the Service cannot reasonably conclude that grazing and haying will support the Refuge’s habitat restoration goals. In fact, these uses may exacerbate the hydrological stress already experienced at the Refuge by reducing vegetation cover and compacting soils, increasing runoff, and degrading water-dominated habitat function.

Given the importance of water availability to Klamath Marsh National Wildlife Refuge, the Service should revise the Draft CD to include a thorough analysis of the hydrological impacts of grazing and haying, including their effects on soil moisture and watershed function. If the Service does not conclude that these uses are incompatible, it must, at a minimum, incorporate hydrology-based limitations into the Draft CD, including requirements to evaluate water availability and hydrological conditions before authorizing use and limitations or suspension of grazing and haying during low-water years.

Response: Please see response to comment #4-4. The Klamath Tribes and USGS are installing wells and monitoring stations on the refuge to monitor hydrological conditions. KBNWRC staff, in coordination with the Klamath Tribes and other partners, are in the process of implementing restoration projects in Klamath Marsh NWR, notably near the Williamson River where some of the refuge’s land is within designated critical habitat of the Oregon spotted frog (OSF). These restoration efforts are expected to increase perennial flooding, and aquatic plant succession may be set back within the restoration area (USFWS 2024b, USFWS 2024c). The restoration efforts directly support Klamath Marsh’s CCP Goal 2:

Restore the historic form and function of riverine and riparian systems to benefit native fish and wildlife, including redband trout, Oregon spotted frog, and migratory birds.

Spatially, with the issuance of this Final Compatibility Determination for Haying and Grazing on Klamath Marsh NWR, the Service is not allowing haying or grazing in units north of Military Crossing Road until after these restoration efforts are implemented, as there is potential for the general hydromorphology of the surrounding marsh area to change.

The Service recognizes many ecological factors may impact fluctuations of populations and aquatic habitat conditions of sensitive amphibious species such as the Oregon spotted frog. Increased severity of drought events is one of the major threats continuing to impact OSF and the habitat and ecosystem processes it depends on (USFWS 2024a). Annual precipitation conditions within Klamath Basin have widely fluctuated since 2020, including extreme or exceptional drought conditions that occurred from 2020 to early 2024 (U.S. Drought Monitor, National Integrated Drought Information System Historical Data). The locations and availability of water sources, pumps, pond water, surface water conditions, and drought conditions are highly influential factors taken into consideration by refuge staff when selecting which refuge units will be open to grazing.

Comment #4-7 The Draft CD fails to adequately evaluate alternative management tools. Under the Service’s regulations, a refuge should resort to Cooperative Agriculture Agreements as a management tool “[o]nly when [they] cannot meet [their] resource management objectives through maintenance, management, or mimicking of natural ecosystem processes or functions of the particular [National Wildlife Refuge System] land area.” Agriculture on refuge lands should be a last resort, not a primary management tool. The Draft CD nonetheless contains only a limited analysis of alternative non-agricultural management tools, focusing solely on prescriptive burns.

A variety of disturbance regimes may reduce incursions of introduced species and improve biodiversity. One potential regime is the use of native grazers such as elk or bison, a non-agricultural method that more closely resembles natural ecosystem processes. Unlike cattle, natural grazers distribute their grazing pressure more widely as they graze on steep slopes and areas distant from water. Despite these important ecological differences, the Draft CD does not analyze a natural grazer approach or explain why it was not selected.

Furthermore, the Draft CD fails to evaluate or require less harmful methods within grazing and haying practices themselves. While the Draft CD acknowledges that certain practices, such as leaving large blocks of un-hayed areas and rotating tracts, can reduce impacts, it does not incorporate these practices as enforceable stipulations. It also fails to consider recognized wildlife-protective harvesting, which can allow wildlife to escape to uncut areas without having to pass through open, cut areas. Additionally, leaving wide unharvested strips or an unharvested border along the perimeter of the haying tract offers several benefits by providing escape cover and undisturbed habitat for the following nesting season. Other established measures include reducing mowing speed, prohibiting high-speed equipment, using flushing devices, raising cutting heights, installing Plexiglass blade protectors, and conducting pre-harvest surveys to mark nesting locations and endangered plants. These measures can significantly reduce mortality of ground-nesting birds and other wildlife. The Draft CD does not mention or require any of these practices.

Similarly, the Draft CD does not meaningfully explore alternative grazing strategies that could reduce impacts on sensitive habitats. For example, it does not require vegetative buffer zones

around wetlands and riparian zones to prevent polluting waters and damaging essential habitat. It also fails to consider measures such as providing stream crossings or hardened access to watering areas, or alternative drinking water and shade locations to discourage livestock from congregating in ecologically sensitive areas. These practices could reduce habitat degradation, yet are neither analyzed nor required in the Draft CD.

The Draft CD itself acknowledges that conventional grazing and haying may result in adverse ecological effects. Given these recognized risks, the Service should explain why Klamath Marsh National Wildlife Refuge must allow livestock grazing and haying to meet its management objectives rather than non-agricultural or modified approaches. The Center recommends that the Service give due consideration to alternative management methods and revise the Draft CD to reflect that analysis. After such analysis, if the Service still finds grazing and haying to be compatible and the proper management tool, it should revise the Draft CD to include enforceable requirements to implement wildlife-protective techniques.

Response: Please see response to comment #4-3. For haying, wildlife-protective harvesting stipulations are included in the Special Use Permits. The infrastructure, staffing and maintenance requirements for bison compatible fencing would be an exponential increase from the conditions that currently exist for cattle grazing. The Klamath Tribes retain treaty hunting rights for elk within the Refuge. Elk currently do naturally graze on the refuge. Utilizing these natural grazing options on a large-scale operation that is implemented and managed by the Refuge is not foreseeably feasible.

Comment #4-8 The Service should publish the Draft CD and other complex compatibility determinations in the Federal Register and in regional and local newspapers. The Service has failed to publish this Draft CD, and many other compatibility determinations, in the federal register, thereby denying the public sufficient opportunity to learn of the existence of these important determinations and of a reasonable opportunity to comment. The level of notice that the Service provided for the Klamath Marsh Draft CD was not commensurate with the scope and complexity of the proposed uses. The Draft CD sets forth a highly impactful policy that will remain in effect for years. In addition to the likely impact of the policy on wildlife and habitat within the Refuge, the policy will have a substantial effect on visitors to the Refuge. Given the scope and complexity of the Draft CD, this level of notice is inadequate.

In addition, the Draft CD does not meet the requirements of the Service’s policy manual. The Draft CD concerns a complex use, but the Service provided the bare minimum notice allowed under their manual by publishing the draft on the refuge website and posting a hard copy at refuge headquarters—a level of notice appropriate for an “incidental, or one-time use.”

The Center, KS Wild, and Oregon Wild urge the Service to publish a revised Draft CD in the Federal Register and in regional and local outlets. Publishing in the Federal Register will ensure the minimum public notice expected for most federal actions subject to notice and comment requirements and publishing in regional and local outlets will increase the likelihood that

interested members of the public receive actual notice of the Draft CD. This level of notification would then comply with the Service’s guidance for complex uses. Providing broader notice will also align with the spirit of the 1997 Refuge Act, which emphasizes the opportunity for “public review and comment” on all compatibility determinations.

For those same reasons, the Center KS Wild, and Oregon Wild urge the Service to adopt a policy of publishing draft compatibility determinations in the Federal Register as a default. While certain one-off uses may not be appropriate for publication in the Federal Register, the Service should err on the side of too much notice rather than too little.

Response: The extent and complexity of public review and comment that is necessary or appropriate will be determined by the refuge manager (603 FW 2). At minimum, a draft compatibility determination must be made available for public comment for 14 days following the day the notice is published (603 FW 2). The Service extended the public review period to 30 days. The Service notified tribes, interested stakeholders, adjacent landowners and partners via email letters in addition to the public website and refuge visitor center postings. Extensive public involvement, Federal Register notice and public comment opportunity was offered when the previous (now expired) version of this CD was published concurrently with the Final CCP/EA in 2010 (USFWS 2010/2010-26666 (75 FR 65371)). Grazing and haying are not new refuge uses. Most of the Refuge is closed to public access, and therefore impacts to recreational uses and visitors are expected to be minimal. Adopting a policy of publishing all draft compatibility determinations in the Federal Register as a default is unnecessary and would be unduly burdensome and expensive for the many compatibility determinations that are prepared across the Service each year.

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