US FISH AND WILDLIFE SERVICE

NATIONAL ELK REFUGE, BISON & ELK MANAGEMENT PLAN

STAKEHOLDER ENGAGEMENT SUMMARY REPORT

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FWS, through the Department of the Interior's Collaborative Action and Dispute Resolution office, contracted with Kearns & West to develop this report.[1]

[1] Prepared by The Langdon Group under subcontract to Kearns & West, collectively referred to as the "Project Team."

Executive Summary

The U.S. Fish and Wildlife Service (FWS), U.S. Department of the Interior, intends to prepare an updated Bison and Elk Management Plan (BEMP) and environmental impact statement (EIS) for the National Elk Refuge (NER). The BEMP describes FWS's proposal for the management of the Jackson, Wyoming bison and elk populations within their respective jurisdictions with the goal of ensuring sustainable and healthy herds. An EIS will be prepared pursuant to the National Environmental Policy Act of 1969 to evaluate the potential environmental impacts of the BEMP.

The BEMP will address changed conditions and newly available scientific information. The BEMP will also set new desired conditions, management goals, objectives, and strategies to guide the management of bison and elk on the NER. The ultimate goal is for a healthy sustainable population of elk and bison on NER and the southern portion of the Greater Yellowstone Ecosystem.

The FWS contracted with the project team to elicit input from a wide range of interests and evaluate prospects for collaboration among partner agencies as well as collaboration with other potentially affected interests. This input was obtained and recorded through a situational assessment, which this report summarizes. Potential assessment participants were identified in coordination with FWS, and 19 interviews were conducted online or over the phone in April and May 2024.

Situation assessment participants, as well as agency representatives from FWS, Wyoming Department of Fish and Game (WGF); National Park Service (NPS), and US Forest Service (FS), attended and participated in one of two, three-hour workshops facilitated by the project team. The workshops were held in Jackson, Wyoming on May 21 and 22, 2024. In total, 20 people signed-in to the workshops (excluding FWS staff).

The following terms are associated with broad percentages to indicate the number of participants who shared a particular view, as determined by the project team. "A few" refers to more than one person, but less than 10% of interviewees; "some," "several," and "other" refers to between 11-50% of interviewees; "many" refers to 51-75% of interviewees, and "most" or "almost all" interviewees refer to greater than 75%.

Coordination among state and federal agencies was discussed in all conversations as a key to a successful management plan for the NER. Elk do not know boundaries and move between FWS-, FS-, and NPS-managed lands, and feeding operations and species management are managed and shared by FWS and the WGF.

The NER feeding program is the crux of the BEMP and the primary differentiator between potential alternatives. Most alternatives eliminate feeding from future management of the NER. Participants are divided about the level of impact that feeding plays in disease spread, and whether herd numbers should or should not be reduced through changes in the feeding program.

One perspective is that feeding creates an artificial, unnatural elk population that fosters increased likelihood of disease spread; under this perspective feeding should be stopped or significantly reduced. The other perspective agrees that feeding the elk population is unnatural and human-caused, however this cannot be undone and believes that an entire ecosystem has been built around these elk herd numbers. Feeding is a critical component to maintaining the current ecosystem and is not a significant contributor to spreading disease.

Some participants suggested that either option will reduce elk herds: Continuing to feed elk will reduce herds because of disease spread. Ending the feeding will reduce herds due to winter die off.

The increased potential for disease spread, predominantly Chronic Wasting Disease (CWD) and, to a lesser degree, brucellosis, among animals in close proximity through the NER feeding program is the primary driver for alternatives that reduce feeding. Most participants agree that disease spread increases as a result of feeding; however, disagreement exists over whether elk are severely impacted by these diseases. Most participants believe disease will create a die off and significantly impact the elk populations, while some believe elk can carry disease but will not experience death or significant health impacts as a result. Few believe the introduction of disease will have a positive effect by reducing elk numbers to a manageable number.

Many participants spoke to the role the elk herds and the NER play in the Greater Yellowstone Ecosystem, primarily as a "keystone species" and "protein source" in the food chain. Reductions in the NER elk herd population will likely impact the populations of predators that rely on them as a food source. Opinions are split, however, as to whether a reduction in numbers on the NER will have a negative impact on predator numbers or behavior. One perspective is that reduced elk numbers will have lasting impacts to multiple species and subsequently the ecosystem and tourism. Another perspective is that other species will adjust and lower numbers of elk and predators are acceptable: the ecosystem is resilient and will recover. Most participants agree the NER and the animals that winter there are in an unnatural state as a result of human intervention, and that returning to a completely natural state is no longer a viable option.

All participants acknowledge that changes to the elk population will impact the surrounding infrastructure and private landowners. Wildlife crossings and fencing are seen by many as a successful effort to safely move elk from the NER to other public lands and away from roads and private properties.

The NER is assumed to be a key component to the economy of the Jackson area. The popularity of winter sleigh rides and wildlife viewing, and the role the current elk population plays in maintaining the ecosystem, drives tourism to Yellowstone and Grand Teton National Parks, where visitors want to see a diversity of wildlife. The most commonly cited role the elk population plays in the economy is through hunting and outfitting.

Some argue that if feeding is eliminated, there will still be elk and other wildlife. Tourism, hunting and the overall economy will adjust.

During the workshops, participants provided specific input to each alternative and suggested new or adjusted alternatives, and considerations relevant to all alternatives, specific to elk management through supplemental feeding.

Background

The U.S. Fish and Wildlife Service (FWS), U.S. Department of the Interior, intends to prepare an updated Bison and Elk Management Plan (BEMP) and environmental impact statement (EIS) for the National Elk Refuge (NER). The BEMP describes FWS's proposal for the management of the Jackson bison and elk populations within their respective jurisdictions, with a goal of ensuring sustainable and healthy herds. An EIS will be prepared pursuant to the National Environmental Policy Act of 1969 to evaluate the potential environmental impacts of the updated BEMP.

The Jackson bison and elk herds make up one of the largest concentrations of free-ranging ungulates in North America. Currently, these herds number about 450 bison and 10,600 elk. More than 15 years have elapsed since the last BEMP was finalized in 2007. Conditions have changed, but elk management remains one of the most important management actions for the NER.

The BEMP will address changed conditions and newly available scientific information. The BEMP will also set new desired conditions, management goals, objectives, and strategies to guide management of bison and elk on the NER. The goal is a healthy, sustainable population of elk and bison on NER and the southern portion of the Greater Yellowstone Ecosystem.

Draft objectives of the updated BEMP include:

- Maintain sustainable populations of elk.
- Maintain sustainable populations of bison.
- Maintain sustainable populations of other wildlife affected by elk and bison management activities.
- Maintain physical habitats and environmental processes associated with bison and elk.
- Maximize health and human safety related to elk and bison.
- Maintain social and economic benefits associated with elk and bison.
- Minimize impacts on cultural, archaeological, and ethnographic resources.
- Minimize costs of bison and elk management activities.

In August 2023, FWS opened a 30-day scoping period for the development of an updated BEMP and an associated EIS for managing elk, bison and habitat on the National Elk Refuge. During this scoping period, FWS took public comments and held public scoping meetings to provide interested stakeholders and members of the public an opportunity to learn more about the process, ask questions, and provide feedback.

In March 2024, FWS announced additional opportunities to engage in the development of the updated BEMP for the National Elk Refuge. These included a series of public information meetings to introduce the alternatives, held in May 2024, and feedback workshops to inform the public and further understand concerns, tradeoffs, and potential ways to reduce adverse consequences associated with potential management alternatives.

Process and Methodology

The FWS contracted with the project team to elicit input from a wide range of interests. The purpose was to gather thoughts and interest about bison and elk management on the NER, capture the diverse perspectives around the issues, and help build working relationships among cooperating agencies and other impacted stakeholders. This process sought to achieve the following goals:

- Improve communication and understanding of the BEMP with the public.
- Build trust with the public through transparent communication and engagement.
- Understand thoughts and interests surrounding bison and elk management on the refuge.
- Identify potential outcomes of the draft alternatives.
- Identify additional alternatives that are not being considered and should.

It was important to provide the opportunity to receive all input, while establishing agency sideboards for the type of input that can be used for potential improvements and changes in the BEMP. The following guidelines were established to help define the side boards for this process:

- Keep the BEMP as the main issue of discussion.
- Focus on topics associated with bison and elk management and future opportunities/challenges.
- Share appropriate and relevant timeframes for implementation of strategies discussed.
- Understand the issues around all alternatives. The goal is not consensus around an alternative,
- The EIS has not been drafted. This input will help FWS develop the foundation of the plan.
- Future engagement will provide the opportunity to provide feedback about the preferred alternative.

Engagement occurred in two phases: Situation Assessment (SA) and facilitated workshops.

<u>Situation Assessment</u>

The project team interviewed 19 individual stakeholders as identified by FWS. Interviews occurred by phone or video conference. These interviews included representatives from the following organizations:

Swift Creek Outfitters
Ecotour Adventures
Teton County Commission
City of Jackson - Town Council
Lockhart Ranch
Jackson Hole Wildlife Foundation
Jackson Hole Conservation Alliance
Moore Films
Jackson Chamber of Commerce
Sierra Club
Safari Club
Teton County
Greater Yellowstone Coalition
Shoshone-Bannock Tribe

Jackson Hole Travel and Tourism Board
Taylor Ranch
WY Guides and Outfitters

Interviewees received an introduction to the project and overview of the situation assessment process from FWS, followed by a request from the project team to schedule a conversation in advance of interviews.

The interview format was designed to solicit valuable and constructive input. The approach was conversational with active listening, allowing participants to steer the discussions. Conversations were predictably varied, reflecting different interests and priorities. Participants were informed their input would not be attributed to them individually or to their organizations.

Discussion group questions were designed to be customized and generate valuable insights through open dialogue (APPENDIX A).

Workshops

Situation assessment participants, as well as agency representatives from FWS, Wyoming Department of Game and Fish (WGF); National Park Service (NPS), and US Forest Service (FS) attended and participated in one of two, three-hour workshops facilitated by the project team. The workshops were held in Jackson, Wyoming on May 21 and 22, 2024. Workshop formats were identical. Two opportunities were provided to match schedules and maintain small group settings. In total, 20 people signed-in to the workshops (excluding FWS staff).

Each workshop began with an introduction presentation by the project team and FWS to share the meeting process and provide background about the BEMP update, followed by two facilitated small group conversations, each focused on soliciting input on these specific questions:

1. What are the potential outcomes (positive, negative, unexpected, and tradeoffs) of the alternatives presented?
    a. To elk?
    b. To bison?
    c. To predator animals and other wildlife?
    d. Other ecosystem impacts?
    e. To the economy?
    f. To private properties?
    g. To the habitat?
    h. How can agencies and non-government partners work together to mitigate these outcomes?
2. What are other alternatives that are not being considered and should?
    a. Are there components of alternatives that FWS is not pairing that should be considered?
    b. What is missing from an existing alternative that should be added or considered?

After each small group conversation, facilitators reported out the findings of each group to the larger group. After Group 1 was finished, during the break, the project team moved some participants between groups to help diversify the perspectives and conversations.

Findings

The following sections capture the opinions, beliefs, and perceptions expressed by the SA and workshop participants as recorded by the project team. ***This report is not intended to verify the accuracy of participant statements*.**

Input is summarized in two broad categories, each with their own subcategories. "Themes" are categories of input received primarily through the SA. The SA provides a snapshot in time of a cross section of interested parties and their communities. However, it is not a representative sample or a "vote" and should not be interpreted as such. The report uses terms associated with broad percentages to indicate the number of participants who shared a particular view, as determined by the project team. "A few" refers to more than one person, but less than 10% of interviewees; "some," "several," and "other" refers to between 11-50% of interviewees; "many" refers to 51-75% of interviewees, and "most" or "almost all" interviewees refer to greater than 75%.

The "alternatives" section captures comments provided during the workshops that specifically relate to an alternative, multiple alternatives, and new or modified alternatives to elk management through supplemental feeding. The structure of the facilitated process encouraged constructive dialogue, perspective sharing, and equal opportunity among participants. Due to the group discussion format, it is not possible to identify a clear preference or level of support for one alternative over another, and no conclusions should be drawn about the strength of one alternative or comment over another based solely on the discussions. The section is organized with relevant comments listed under each alternative subheading. Comments are the opinion of one or more workshop participants.

Themes

Additional Stakeholders

The following stakeholders were suggested as important to include in the process:

- Elk Creek and Flat Creek Inns
- Jackson Hole Golf and Tennis
- Jackson Hole Guides and Outfitters
- Lockart Family
- Lucas Family
- Lloyd Dorsey
- Mead Family
- Photography groups
- Spring Creek Ranch
- Sy Gilliland, Outfitter
- Tribes with historical connection (Wind River, Northern Arapaho, Shoshone-Bannock, Sheep Eaters)
- Wildlife disease experts, specifically Paul Cross, Montana State University Wind River Indian Reservation
- Wolf advocacy organizations
- Wyoming Department of Transportation
- Wyoming Wildlife Advocates

Agency Coordination

Coordination among state and federal agencies was discussed in all conversations as a key to a successful management plan for the NER. The elk do not know boundaries and move between FWS, FS, and NPS lands, and feeding operations and species management are managed and shared by FWS and the WGF. One participant mentioned that the success of the NER and the BEMP are contingent on the other agencies' ability to cooperatively mitigate impacts and share common goals.

The WGF goal of maintaining a Jackson Hole elk herd of 11,000 elk is perceived by most as an appropriate target. Predators like wolves and grizzly bears can keep this number in check. Participants are split as to whether a 5,000 elk target on the NER is appropriate or not significant enough and whether this level is attainable while also maintaining an 11,000 elk target for the larger herd.

Most participants believe that agreement among agencies is necessary to avoid litigation, and all agencies need to collaborate on the development of EIS alternatives. One participant commented that the previous BEMP was a joint plan and questioned why this plan is specific to FWS and focused on the NER. There is concern expressed by some that the actions of this BEMP do not consider the planning efforts of the other agencies and may create conflicting or redundant efforts.

Participants recommended the following specific coordination efforts:

- Engage with the Governor's office early and often.
- Work with the FS management plan to ensure the FS know how elk movement patterns impact trail management.
- Major openings (treatments) of forest are needed.

- Consider the migration of the southern Grand Teton National Park elk herd in management decisions.
- Ensure that alternatives bring all agencies to the table to have a conversation about animal migration, specifically the numbers of animals projected to leave the NER and impact other agency lands.
- The NER is one piece of a larger feeding ground network managed by multiple agencies. When feeding is reduced in one location, it will create increased demand on the others.
- Collectively, agencies should promote greater biodiversity.
- Ensure coordination is occurring with Native American tribes. Visitors want to know how tribes used this land.
- Agencies should coordinate with private landowners to open up more land for forage through short term leases and long-term conservation easements.
- FS and Bureau of Land Management (BLM)-administered land could be used for wintering if land were set aside, specifically in the Bridger Teton National Forest Management Plan revision. This may require moving grazing out of areas for periods of time and coordinating changes to the hunting regulations with WGF.
- Agencies should work together to pool and increase funding.
- Coordinate with County Commissioners to mitigate impacts. Counties need to understand whether they need to apply resources, particularly for scenarios in which feeding ends.

Bison

Bison management was not a major concern among most participants. Most indicated that the NER is managing bison well, that their role is minimal, and that if bison numbers increase it will be important to buid awareness of the potential for spreading brucellosis.

Specific comments regarding Bison were:

- They are not native to winter range in the NER and only learned there was feed there in the last 20 years. If numbers increase significantly this could have an impact on the elk population.
- Bison can be destructive to private property.
- The objective of 500 feels high.
- Bison management could be achieved by expanding the Shoshone-Bannock Tribe hunting season on the NER.

Community Outreach/Engagement

Some participants mentioned specific community outreach and engagement efforts that they would like to see incorporated into the BEMP:

- Education and outreach will be important, particularly if elk numbers decrease. Share information about how this will impact the Jackson Hole community, both positively and negatively, and what it means to live in an elk environment. Prepare the public for hard years where many elk may not survive.
- Create an “Annual Elk Summit” that brings stakeholders together to monitor and discuss adaptability to changes and their diverse impacts (economic, social, political).
- Be clear about how the BEMP impacts specific interest groups.

- Showcase the NER to the community by providing opportunities to get people out in parts of the refuge they may not have visited.
- Solicit volunteer help with weed management and other projects. This will help the NER inform the community about management challenges.
- Increase awareness with outfitters about mutual sharing of NER hunting grounds with other hunters.
- Public outreach and education (youth programs, adult programs) are vital to the success of and support for the refuge.

Ecosystem and Landscape

Many participants spoke to the role the elk herds and the NER play in the Greater Yellowstone Ecosystem, primarily as a "keystone species" in the food chain. Changes to the NER elk herd population will subsequently impact the populations of predators that rely on them as a food source. Opinions are split about whether a reduction in numbers on the NER would have a negative impact. One perspective is that reduced elk numbers will have lasting impacts to multiple species and subsequently the ecosystem and tourism. Another perspective is that other species will adjust, and lower numbers of elk and predators are acceptable: the ecosystem is resilient and will recover. Most participants agree that the NER and the animals that winter there are unnatural and a result of human intervention. Most also agree that returning to a completely natural state is no longer a viable option.

Many participants shared that the NER plays a broad role in the ecosystem, beyond elk and bison management. Fish in Flat Creek, deer, pronghorn, and bighorn sheep all rely on the NER for habitat.

Specific comments about the NER role in the broader ecosystem include:

- Consider climate data and how a changing climate will impact populations and management decisions long term.
- The current number of elk is appropriate to hold the wolf population to about 150.
- Elk are not in the same areas they used to be. They are spending more time in river bottoms and private land to avoid the wolves, or they are going into the high alpine.
- Feeding elk has produced a monoculture that does not promote the greatest biodiversity.
- Heavy elk concentration has pushed out cottonwoods and willow stands.
- There are fewer songbirds, moose, and other species on the NER because elk do not allow for those habitats to grow.
- Consider opening Spring Gulch for additional winter habitat.
- Pastures south of town could support forage and native vegetation, but there is a question whether elk populations there would be welcome by residents.

Feeding

The NER feeding program is the crux of the BEMP and the primary differentiator between alternatives: most alternatives include a reduced feeding component. Participants are split about the level of impact feeding plays in disease spread and whether herd numbers should or should not be reduced through changes in the feeding program.

One perspective is that feeding creates an artificial, unnatural elk population that fosters an environment for increased likelihood of disease spread. According to this perspective, feeding should be stopped or

significantly reduced. The other perspective acknowledges that the elk population is unnatural, and human caused, but this cannot be undone: an entire ecosystem has been built around these elk herd numbers. Feeding is a critical component to maintaining the current ecosystem and it is not a significant contributor to spreading disease.

Some participants opined that either option will reduce elk herds: continued feeding will reduce elk through disease spread, and ending elk feeding will reduce elk through winder die off.

Alternatives presented by some participants were:

- Implement an emergency feeding program similar to what is being done in Montana and Idaho to replace the current feeding program. This creates a new threshold for when feeding is implemented.
- FWS has done a good job adding irrigation and water systems to grow more natural forage. Building on these efforts will create forage that can replace winter feeding.
- WGF has a plan to look at other feed grounds and reduce or eliminate feed at those locations. These efforts need to be coordinated with FWS to manage the broader overall Jackson Hole elk herd.
- Introducing a later hunting season will help reduce numbers, allowing feeding to continue.
- If feeding is eliminated, this significant cost could shift to habitat restoration, private land acquisition, or cost-sharing programs that help move cattle out of ranches seasonally, opening more ground for winter feeding.

Specific comments provided are:

- The ecosystem may thrive after feeding is eliminated or reduced, however when a large winter storm occurs or spring rainstorm that crusts up the snow, the die off reduces the herd significantly, then predators and the broader ecosystem will be more severely impacted.
- 70-80 days of feeding is necessary, beyond that the elk can survive any winter.
- Feeding is necessary but could be dispersed out to northern areas to diversify the herd.
- Weak and young elk are getting pushed out of the feed lines and not getting the forage they need.
- Feeding elk reduces pressure on surrounding landowners. Without feeding, they will move to private landowners and damage property.
- Feeding helps keep elk off roadways, which reduces the potential for wildlife-vehicle collisions.
- With wildlife crossings and public/private land opened up for winter range, there is space for animals to exist outside of the NER.
- The primary driver for continuing to feed is political pressure from the hunting and outfitting community. Large elk numbers from the feeding program sustains the outfitting economy, which is important to the state of Wyoming.
- The current elk population embodies the culture in Jackson Hole. Individuals and advocacy groups want to ensure there are robust numbers to maintain the “valley of the elk” reputation.
- There were good reasons to start feeding in 1910 because of the impact elk were having on ranches. Ranching in the area is no longer significant and therefore feeding is now unnecessary. Ranching has changed, but the elk management has not.
- Decisions must consider the body condition of the elk entering the winter. Healthy elk will survive with reduced or eliminated feeding.

Habitat Restoration/Water Quality

Participants provided input about additional measures to help promote a healthy ecosystem on the NER. The following ideas were offered by participants:

- Manage the amount of sediment in the waterways to improve water quality and fish rearing habitat.
- Reduce noxious weeds, specifically cheat grass on the buttes.
- Consider how water management impacts downstream users and work closely with irrigators to create solutions.
- Reconstruct the wetlands and riparian areas. These get overlooked and should have greater effort applied to them. This will support a stronger bird population.
- Rehabilitate the riparian areas.
- Install exclusionary fencing to help riparian recovery.

Health and Disease

The increased potential for disease spread, predominantly Chronic Wasting Disease (CWD) and to a lesser degree brucellosis, among animals in close proximity due to the NER feeding program is the primary driver for alternatives that reduce feeding. Most agree that disease spread increases in these circumstances, however disagreement exists as to whether elk are severely impacted by these diseases. Most believe disease will create a die off and significantly impact the elk populations, while some believe that while elk can carry the disease, it will not result in death or significant health impacts. Few believe the introduction of disease will have a positive effect by reducing elk numbers to a manageable number.

Specific comments provided include:

- It is unclear what level of CWD is tolerable or natural.
- CWD is harmful to deer but does not seem to be as harmful to elk. This should not be the driver behind decisions made at the NER.
- Keeping cattle and elk separate will reduce the potential of disease spread from animals to livestock. This is mostly relevant for brucellosis. CWD does not spread from elk to cattle.
- The process requires a large-scale scientific analysis by collecting data through collaring and monitoring elk health.
- Dispersed feeding will reduce the potential for disease spread.
- There is a financial incentive for outfitters and guides to downplay CWD. This is a threat to their ability to sell hunts out of state.
- There is no scientific rationale offered for claims that CWD does not spread among elk.

Landowner and Human Infrastructure Interactions

All participants acknowledge that changes to the elk population will have some impact on human infrastructure and private landowners. Wildlife crossings and fencing are seen by many as a successful effort to disperse elk from the NER and away from roads and private properties. Specific ideas were offered on how private land can adapt to support a health elk population:

- Increase hunting opportunities on private land. This will provide an option for different populations to hunt, such as youth, seniors, veterans, and the disabled.

- Increasing elk populations on private lands will result in “zoo ranches” with greater human interaction.
- Private landowner landscaping should attempt to mimic the natural environment rather than unnatural landscaping (ornamental shrubs) that causes frustration when it is impacted by elk.
- Seek to reduce development in elk movement corridors.
- Fence hay or seasonally remove cows. This will allow for the removal of fences designed to keep cattle in and elk out. It is recognized that moving cows may not be financially feasible for all ranches, however cost-sharing and incentive programs could make this more viable.
- Ranchers should consider shifting operations to cows that cannot contract brucellosis, instead of cow-calf operations, to allow elk and cattle to feed the same ground.
- Explore leases with private landowners that would open more winter ground.

Local Economy

The NER is a key component to the economy of the Jackson Hole area. Winter sleigh rides and wildlife viewing are popular, and a significant elk population plays a role in maintaining an ecosystem that drives tourism to Yellowstone and Grand Teton National Parks, where visitors expect to see a diversity of wildlife. The most commonly cited role the elk population plays in the economy is through hunting and outfitting.

Some argue that if feeding is eliminated there will still be elk and other wildlife. Tourism, hunting, and the overall economy will adjust.

Alternatives

Alternative 1: Keep supplemental feeding (status-quo)

- This ignores existing conflicts involving highways, private landowners, summer elk, and public versus private lands.
- This increases disease conditions.
- This maintains the high elk herd, which is good for the economy.
- This introduces many legal challenges.
- This would cause a devastating prion infestation. It is essential to stave off CWD now.
- This will not affect the tourism economy if there is a harsh winter that would result in a significant die off without feeding.
- Bears and wolves are here to stay. The predatory base has learned to survive on the elk protein base. If that base is tampered with, in year one, there will be major impacts with displacement of predators.
- This is the only viable alternative. The 5,000-target population is too low. At one point the NER wintered 11,000. That was too high. The target needs to be between these numbers, but it is hard to keep that at a consistent level because of the predators and intrusion of private lands.
- If you drop below the status quo, the calf recruitment level changes. Currently, the predators keep the calf ratio in check.
- With a herd of 7,000-8,000 there is no impact to the Yellowstone migrants.
- The current system provides the protein needed for the broader animal population.
- Adjust hunting regulations to increase annual harvest.
- Feeding is a learned behavior that cannot be unlearned, therefore this is the only viable alternative.

Alternative 2: Immediate stop to supplemental feeding

- There needs to be discussion of who shares the burden of conflict. A portion of the elk herd has shifted into residential areas. How do we address that in this alternative and alternatives 3-5?
- This will shift the elk to the Gros Ventre where the habitat is not desirable.
- This will result in significant impact to private landowners and ranches that absorb the elk. Consider including compensation for impacted landowners.
- This will bring negative worldwide media attention when elk die off occurs.
- Consider the FWS' vulnerability to lawsuits and how this will hamper progress and impact the agency's capacity and funding.
- Consider the impact on human safety with increased elk numbers on roadways.

Alternative 3: Reduce supplemental feeding over five-year period, then end supplemental feeding

- This may cause more private land conflicts with elk getting into livestock hay, back yards, and on roadways.
- This will allow the community to collaborate and adapt the landscape.
- Public perception problem is still a challenge if the result is visible dead elk.
- This provides five more years to adapt to change than alternative two.

- CWD is still a concern.
- Five years is not long enough.
- Alternatives 3 and 5 would produce the desired outcome of healthier “wild” elk.
- The five-year phase out is arbitrary and based on feedback. This needs flexibility to accommodate economic concerns.

Alternative 4: End supplemental feeding once CWD prevalence threshold is reached

- Questions remain regarding the ability to detect CWD. There is a lot of subjectivity in an environment with a high prevalence of predators. How objective are the testing methods?
- Based on the sample size, there is reasonable confidence in the prevalence estimates, enough to develop a threshold.
- There are a lot of unknowns about the trigger for when the community needs to pivot. More data on what habitat exists would be helpful.
- This is a reactive model, which is harder to mitigate and manage.

Alternative 5: Aggressive elk harvest first, then end supplemental feeding

- This will produce more balance with the habitat.
- With aggressive phase out there will be a negative public perception.
- This requires considering difficult winter hunts.
- Ensure the “right” elk are harvested.
- Smaller increments help the public perception optics.
- This challenges the ability to adapt and implement change management strategies. Are we able to adapt mid-season? Can the management strategy be adapted to the best available science?
- Consider separating bison and elk to provide more flexibility, availability of forage, and reduced conflict.

New Alternatives/Modifications and Considerations to Alternatives

- Alternative 4 from the 2007 BEMP EIS featured a 5,000 head objective target and aggressive harvest of short distance migration elk.
    - Outfitters supported this.
    - Short migrants are considered a nuisance to some landowners, however not all property owners think they are a nuisance. Values are likely to continue to shift this way.
    - Predator base stays the same if the harvest focus is on short distance migrants.
- Combine alternatives 3,4 and 5 with a more flexible tiered response.
- Consider hybridizing several alternatives.
- Modify Alternative 3 to a 10-year phase out.

Shared Recommendations

During the workshops, participants provided recommendations for inclusion in all alternatives:

- Incorporate USGS, peer-reviewed models for the Jackson Elk Herd, expected to be released at the same time as the EIS. The report is expected to show that current CWD prevalence is below 1%. CWD grows slowly at low prevalence, then increases drastically. It is difficult to predict how quickly numbers will reach 3%, but the curve would be steeper in fed animals.
- Less elk may result in more or less invasive weed spread that need to be addressed in the BEMP.
- Identify how the health and condition of elk will be measured.
- There is concern that any alternative could result in elk numbers below the target and the resulting impacts to the elk, predators, and the economy. This potential outcome necessitates the need for adaptability and contingencies.
- None of the alternatives address the impacts outside the NER
    - It is very difficult to capture all that could happen outside of the NER.
    - FWS is encouraged to explore mitigation measures with cooperating agencies.
- Change "Feed Ground" to "Elk Management Area."
- Stage feeding in different areas of the NER.
- Accept variances (swings) in elk population.
- Include commitment to winter closures from recreation and public access to help build resilient habitat.
- Implement controlled burns to regenerate forage growth.
- Additional items to consider adding to all alternatives:
    - Adaptive management procedures
    - Emergency feeding provisions
    - Fencing
    - Habitat manipulation to increase forage
    - County land development regulations and ordinances
    - Low density feeding programs the FS has implemented
    - Incentive based landowner agreements to open private lands
    - Impact to other wildlife from new elk migration patterns

APPENDIX A: Situation Assessment Discussion Questions

The following are grouped into categories based on the Triangle of Satisfaction model by Christopher Moore, that argues for anyone to find total satisfaction, three needs must be met.

Psychological

- Tell me about you and your story: How are you connected to the elk refuge and bison and elk management?
- What is your connection to this conversation? Why is it important? Or not important?
- What is your involvement in the future of the elk refuge, related to bison and elk management?
- Are you being appropriately engaged or involved? Explain.
- Are there religious or cultural connections to bison and elk management that need to be considered in a planning effort?

Substantive

- What do you consider a "healthy" bison and elk population? -- What do you know about current and prosed elk and bison population objectives? Are these numbers sustainable? Is the data understandable? Do they warrant discussion?
- What is your position on supplemental feeding of elk or bison?
- How familiar are you with current elk and bison management actions on the refuge?
- What do you know about Chronic Wasting Disease (CWD)? Who is responsible for managing CWD transmission among elk? What don't you understand? Is the NER handling or managing it appropriately? What role does supplemental feeding play? Explain.
- What is your position on the status of brucellosis transmission from elk to domestic livestock? Is the NER addressing this issue appropriately or is greater action needed?
- What is the status of bison and elk impacts to adjacent landowners? Does more or less need to be done to address any issues?
- Explain the refuge's relationship with the local economy (recreation, outfitting, viewing, guiding). Is this being appropriately addressed? If not, how can this better be addressed.
- How are bison and elk from the refuge positively or negatively impacting local agriculture interest? How is this being addressed and is there room for improvement?
- Are human-wildlife conflicts being appropriately addressed? Explain.
- How are changes on the landscape (weather, land ownership, development) impacting the bison and elk herds and how should this be considered?
- How much consideration should other species be given on the refuge? Are their needs being appropriately considered? Are they being impacted?
- What is your opinion about refuge habitat restoration efforts?
- Are soil quality and water health being appropriately considered? Explain.
- Are invasive species being managed appropriately? Explain.
- Is there new information or alternatives FWS should be considering when making management decisions?

Procedural

- What challenges might we encounter in trying to bring the public and interest groups together for discussion?
- What is your past and current relationship with the FWS?

- Have you participated in a workshop in the past? How did it go?
- Describe a workshop you have participated in or are aware of that was successful.
    - Do you have an unsuccessful example?
        - How have people felt let down by this process and what were their expectations for it?
        - What were they hoping to see come out of it?
- Are there processes that you think will be effective in capturing valuable input for this process, such as World Café small group discussions? In this format, what discussion topics would be appropriate for small group discussion?
- Are there interests or voices you are aware of that may be difficult to reach? …or haven't had the opportunity to participate in these types of processes, but should have?
    - How have efforts to reach/connect with them in the past been successful?
    - Are there specific interest groups or local resource agencies that may have their finger on the pulse of reaching underserved members of the community?