

ELK HERD UNIT MANAGEMENT PLAN
Elk Herd Unit #1
BOX ELDER
2023

BOUNDARY DESCRIPTION

Box Elder, Davis, Salt Lake, Tooele and Weber counties - Boundary begins at the Utah-Idaho state line and I-15; west on this state line to the Utah-Nevada state line; south on this state line to I-80; east on I-80 to I-15; north on I-15 to the Utah-Idaho state line.

Subunit Boundaries

Box Elder, Grouse Creek (subunit 1a) - Box Elder County - Boundary begins on the Utah-Idaho state line at the Lynn/Almo, Idaho road and the Utah-Idaho state line; southwest on this road through the Raft River Narrows to Lynn and the Lynn Valley road; south on this road to the Dove Creek road; southeast on this road over Dove Creek Pass to SR-30 near Rosette; south and west on SR-30 to the Utah-Nevada state line; north on this state line to the Utah-Idaho state line; east on this state line to the Lynn/Almo, Idaho road.

Box Elder, Hansel Mountain (subunit 1b) - Box Elder and Weber Counties - Boundary begins at 12th Street and I-15 in Ogden; north on I-15 to the Utah/Idaho state line; west on this state line to SR-42; southeast on SR-42 to SR-30; southwest on SR-30 to township line of R15W and R16W; due south on this line to Union Pacific railroad tracks; east on these tracks(causeway) to 12th Street; east on this street to I-15 in Ogden.

Box Elder, Pilot Mountain (subunit 1c) - Box Elder and Tooele Counties - Boundary begins at SR-30 and the Utah-Nevada state line; east along SR-30 to the township line separating Range 15 West and Range 16 West; south along this township line to I-80; west along I-80 to the Utah-Nevada state line; north along this state line to SR-30. This subunit also includes Nevada's Unit 091. Nevada's Unit 091 boundary begins at I-80 and the Utah-Nevada state line, west on I-80 to the Pilot Creek Valley Road, north on Pilot Creek Valley Road to SR-233, east on SR-233 to the Utah state line, south on the state line to I-80.

Box Elder, Sawtooth (subunit 1d) - Box Elder County - Boundary begins at the Lynn/Almo, Idaho road and the Utah-Idaho state line; southwest on this road through the Raft River Narrows to Lynn and the Lynn Valley road; south on this road to the Dove Creek road; southeast on this road over Dove Creek Pass to SR-30 near Rosette; northeast on SR-30 to SR-42; northwest on SR-42 to the Utah-Idaho state line; west on the state line to the Lynn/Almo, Idaho road.

UNIT MANAGEMENT GOALS

- Manage for a population of healthy animals capable of providing a broad range of recreational opportunities including hunting and viewing
- Consider impacts of the elk herd on other land uses and public interests including private property rights, agricultural crops and local economies
- Maintain the population at a level that is within the long-term capability of the available habitat
- Use multiple strategies to help manage elk populations and address the complex private/public land interface throughout the unit
- Prioritize the use of Cooperative Wildlife Management Units (CWMU's), depredation plans, and private land only tags in sections of the unit with large amounts of private land and agricultural production

- Prioritize habitat restoration and enhancement efforts to increase the amount and quality of habitat on public lands to draw elk away from agricultural areas

The Pilot Mountain subunit is co-managed with the Nevada Department of Wildlife to abide with an interstate hunt agreement. An annual coordination meeting with the Nevada Department of Wildlife should be held to address management strategies for the Pilot subunit to abide by the interstate hunt agreement.

UNIT MANAGEMENT OBJECTIVES

Habitat - Summer and winter ranges should be maintained and improved to sustain healthy herds of elk across all subunits. Summer habitat improvements should be prioritized to distribute elk throughout each subunit and hold elk away from areas of agricultural production. Winter ranges should also be improved to maintain healthy elk herds and limit the amount of time elk spend depredated agricultural fields. Subunit-specific habitat objectives are as follows:

- **Grouse Creek 1a** - Increase summer range through habitat improvement projects and water improvements to distribute elk away from agricultural production areas.
- **Hansel Mountain 1b** - Improve habitat on public land through invasive species management and water development projects to reduce pressure on private land and provide public hunting opportunities.
- **Pilot Mountain 1c** - Improve both summer and winter range to increase the carrying capacity of the elk herd year-round. Coordinate with the Nevada Department of Wildlife where interstate projects may be useful.
- **Sawtooth 1d** - Improve summer range through habitat projects, controlled burning, and natural water source improvement to sustain the herd at the management objective.

Population - Population objectives have been set for several subunits using subcommittees consisting of private landowners, representatives from state, federal, and tribal organizations, and representatives of hunting and agricultural interest groups. The goal is to maintain elk herds at the objectives that have been set and use multiple strategies to alter elk distribution in areas of agricultural concern. The overall objective for winter herd size on the unit is 1,075 elk. The specific elk population objectives for each subunit are as follows:

- **Grouse Creek 1a** 175
- **Hansel Mountain 1b** 400
- **Pilot Mountain 1c** 400
- **Sawtooth 1d** 100
- **Unit Total** 1,075

Bull Elk Harvest Objectives - As per the Statewide Elk Management Plan, harvest strategies are used to provide diverse hunting opportunities for the public. The subunit specific harvest strategies are as follows:

- **Grouse Creek 1a** - This is a limited entry bull elk hunting unit. The objective for the average age of harvested bull elk is 5.5-6.0 years old. General season spike elk hunting is allowed to increase hunting opportunities on this unit.
- **Hansel Mountain 1b** - This is a general season any bull hunting unit.
- **Pilot Mountain 1c** - This is a limited entry bull elk hunting unit. The objective is for the average age of harvested bull elk to be 5.5-6.0 years old. No general season spike hunting on this unit due to the cooperative agreement with Nevada.
- **Sawtooth 1d** - This is a general season any bull hunting unit.

CURRENT STATUS OF ELK MANAGEMENT

Habitat - All areas of this unit have undergone a general decline over the last several years due to persistent drought conditions, large wildfires, and invasive species. Primary concerns are the

expansion of cheatgrass and other invasive grasses in recently burned areas, as well as the persistent habitat decline observed in areas of excessive juniper expansion. Subunit specific habitat statuses are as follows:

- **Grouse Creek 1a** - The primary concern affecting elk habitat that occurred recently was the Goose Creek Fire in 2018. This fire burned 132,127 acres in both Utah and Nevada in areas of good elk habitat. Restoration efforts have been underway to aid in the recovery of this fire. Other concerns include degradation of natural water sources, invasive species expansion, and some areas of excessive juniper encroachment. Several habitat projects have been completed in this subunit and are outlined in the table below.
- **Hansel Mountain 1b** - The majority of elk habitat in this subunit is on private land. The areas elk use on public land have excessive juniper cover, poor water resources, and a large amount of cheatgrass.
- **Pilot Mountain 1c** - This area has experienced excessive drought conditions and has undergone a steady decline in quality of both summer and winter habitat. There is excessive juniper cover in much of the unit. Natural water sources have also been degrading. Several habitat projects have been completed in this subunit and are outlined in the table below.
- **Sawtooth 1d** - A large amount of coniferous trees have been dying off and aspen regeneration has been low throughout the summer range. Some natural water sources have also degraded due to erosion and overuse by cattle. Several habitat projects have been completed in this subunit and are outlined in the table below.

Range Area and Approximate Ownership

Ownership	Yearlong Range		Summer Range		Winter Range	
	Area (acres)	%	Area (acres)	%	Area (acres)	%
Forest Service	0	0	30,115	54	5,913	13
Bureau of Land Management	190,324	48	5,459	10	21,528	48
Utah State Institutional Trust Lands	28,082	7	1,553	3	3,447	8
Native American Trust Lands	0	0	0	0	0	0
Private	182,078	45	18,277	33	13,800	31
Department of Defense	0	0	0	0	0	0
USFWS Refuge	0	0	0	0	0	0
National Parks	0	0	0	0	0	0
Utah State Parks	0	0	0	0	0	0
Utah Division of Wildlife Resources	0	0	0	0	0	0
TOTAL	400,484	100	55,404	100	44,688	100

Habitat Projects Completed and Proposed 2012-2023

Pole Creek Bullhog	1,619 acres
North Grouse Creek Bullhog	1,066 acres
Grouse Creek Bullhog ph II	1,031 acres
Grouse Creek Bullhog ph III	705 acres
West Grouse Creek Bullhog ph II	1,079 acres
West Grouse Creek Bullhog ph III	950 acres
Black Pine Fire Rehab	368 acres
Pilot Peak Brush Treatment	330 acres
Grouse Creek Watershed Stream Restoration ph II	64 acres
Raft River Aspen Restoration Project ph II	410 acres
Goose Creek Fire Stream Restoration ph II	27 acres
Grouse Creek Valley Brush Removal	290 acres
Mountain Meadow Ranch WRI Water	N/A
Goose Creek Fire Stream Restoration ph I	27 acres
Raft River Aspen Restoration Project ph I	410 acres
Raft River Riparian and Meadow Restoration Project	1,013 acres
Goose Creek Fire Rehabilitation	24,684 acres
Warm Creek Brush Treatment	1,294 acres
Grouse Creek Livestock Assoc. Upland Water System	N/A
Junction Creek Sage Grouse Habitat Improvement	445 acres
Pilot Mountain Range Brush Management ph I	330 acres
North Grouse Creek Habitat Restoration	1,650 acres

Population - Elk populations in each subunit follow different patterns. The history of elk movement in each subunit is unique and somewhat interrelated. A history of elk in each subunit as well as the current status is outlined below:

- Grouse Creek 1a** - This elk herd has been growing and expanding for several decades. Elk movement across the state line is common and makes management difficult. In the early 2000's the population was increasing, particularly in the summer. Elk move into Utah from Nevada in the summer, with peak summer counts being observed above 400 animals. Through intensive harvest on private land, the implementation of CWMU's, and habitat change the current summer population is near the objective of 175 animals. Movements of 100 animals into or out of the unit from Nevada can be common, which can lead to short-term increases or decreases of elk in the subunit. The winter population has been observed at about 150 animals in the last couple years, with most elk in or around the towns of Etna and Grouse Creek. Summer elk classification surveys currently take place to keep track of herd growth and production. Aerial surveys to count elk and moose have been occurring in the winter and are intended to be repeated every 3 years. In 2016, the West Box Elder Elk Subcommittee established a population objective of 275 animals throughout the entire subunit, with a subpopulation objective of 100 animals in the Raft River portion of the unit. In the time since that meeting was held, the Raft River portion of the unit was split into Subunit 1d. To keep the overall objective of Subunit 1a in compliance with the original intent, the new population objective is 175 animals and the new Subunit 1d has an objective of 100 animals. Public bull elk harvest has averaged 17 elk per year over the last 5-years, while CWMU harvest has averaged 25 elk per year over the same time period. An average of 4

spike bulls per year have been harvested as well. An average of 3 cow elk were harvested in the public draw, while six cow elk were harvested per year on CWMUs.

- **Hansel Mountain 1b** - Elk began moving into this subunit in the late 1980's from Idaho. Originally, elk moved into this subunit during the winter and returned to Idaho in the spring. A wildlife drift fence in Idaho limited movements along this route, but in the mid 1990's the drift fence was removed and 200-300 elk began crossing the state line. The majority of these elk would return to Idaho, but several began staying year-round in Utah. When the summer population reached 20 animals in this subunit, the UDWR initiated several hunts in an attempt to eliminate the population. A general any bull season was initiated as well as antlerless depredation vouchers to landowners and a public antlerless hunt. The subunit was expanded in 2016 to include the area from I-15 west to SR 30. The elk population has grown significantly since that time and the overwinter herd in 2022 was observed to be around 600 animals. Tolerance for the animals was low and the population objective for the subunit was 0 until 2023. In July 2023 a subcommittee composed of several landowners, agricultural groups, sportsman groups, and public agencies met in Snowville to discuss the population objective. At that meeting, the subcommittee voted to increase the population objective of subunit 1b to 400 elk year-round. All management tools, including the private lands only antlerless hunt and depredation vouchers, will remain in place in order to reduce the population down to the objective and prevent the herd from growing over the objective again. An average of 27 bull elk per year were harvested on this subunit on the general hunt over the last five years, while an average of 17 cow elk were harvested each year over the same time period.
- **Pilot Mountain 1c** - This population is co-managed with the Nevada Department of Wildlife (NDOW). Aerial helicopter surveys occur every other year on this unit with Utah and Nevada scheduling and paying for the flight every other survey. Nevada will schedule and pay for the winter 2023-24 survey and Utah will be responsible for the 2025-26 survey. The data from helicopter surveys are input into a population model run by NDOW. Based on this model, the population has increased slowly to near the population objective of 400 animals. To coordinate hunt timing with Nevada, the any weapon bull elk hunt on this unit will be recommended to start the 2nd Saturday in September and run for three weeks. An average of 12 bull elk were harvested per year on this subunit.
- **Sawtooth 1d** - This elk population has been transitory and minimal for the last several years. Elk move into this subunit from the Grouse Creek subunit to the west, from Idaho to the North, and from the Hansel Mountain subunit to the east. There has not appeared to be a permanent elk population in this unit year-round up to this point. Elk sightings are rare in the higher elevations of this unit. Agricultural fields on the Idaho border get depredated by elk, but it seems these elk come in from Idaho at night and return in the morning. Collared elk from the Hansel Mountain subunit move into the eastern side of the unit in the spring and leave in the fall, but these elk spend most of their time on the private rangelands east of Crystal Peak. There have been sightings reported of elk in the meadows around Rosevere Point and elk have been photographed by a UDWR trail camera in Rosevere Canyon. In March, 2023 a herd of approximately 60 elk was observed southwest of Yost by UDWR personnel, but there is no evidence they stayed in the unit in the summer.

BARRIERS TO ACHIEVING UNIT MANAGEMENT OBJECTIVES

Habitat - In general, each subunit suffers from habitat degradation due to drought, invasive species invasion, and fire. Habitat improvement projects aimed at removing invasive species, re-establishing productive rangelands, and preserving natural sources of water would improve elk habitat. Subunit specific habitat status are as follows:

- **Grouse Creek 1a** - Limited summer habitat in the east Grouse Creek Range, as well as substantial habitat loss in the Goose Creek Range due to fire, is affecting this population. Elk depredate agricultural land in the summer, leading to landowner conflict and elk removal. Based on a subcommittee meeting in Grouse Creek in 2016, landowners are not expected to tolerate elk depredation causing sustained measurable damage to crops. Increases in elk

population are only allowed through immigration, so any habitat projects should be aimed at changing elk use of private lands, not increasing the herd size.

- **Hansel Mountain 1b** - Most elk in this unit reside on private lands year-round. Elk deplete agricultural land in areas with low tolerance by private landowners. There is limited elk summer habitat in the Hogup Mountains and winter habitat on Cedar Hill and in the Wildcat Hills. Improving habitat on public land may shift some elk use, but it is unlikely it would pull large numbers of elk off private land. In 2023 the population objective was increased to 400 animals, up from 0. Due to this, CWMU's plan on forming in areas where private landowners are tolerant of elk. If possible, working with private landowners to improve elk summer range on their land may shift elk use out of agricultural areas.
- **Pilot Mountain 1c** - Both summer and winter habitat appear to be limiting. In the 1980's and 1990's summer crop depredation was not an issue but has become a significant issue in current years. This may be due to extended drought, juniper expansion, and habitat loss due to fire. Winter range has also had limited feed in recent years, which may lead to limited elk survival and immigration out of the unit.
- **Sawtooth 1d** - Summer range in this unit appears good, however elk have not used it to any significant extent. It is possible that excessive conifer growth and tree diseases have led to reduced understory and poor habitat. There is also limited winter range on the subunit, leading to elk wintering in other areas.

Population - Elk population limitations are unique to each subunit. Subunit 1a and 1b have social carrying capacities that limits herd growth, while subunits 1c and 1d appear to have habitats limiting herd growth.

- **Grouse Creek 1a** - This unit has a social carrying capacity based on agricultural land around Grouse Creek and Etna. At the current time, any elk population increase in the southern portion of this subunit would lead to increased depredation, which is not allowed under current management goals.
- **Hansel Mountain 1b** - This unit also has a social carrying capacity based on agricultural land. The social carrying capacity was increased from 0 to 400 animals in 2023, so all management goals need to focus on bringing the population down to the agreed upon number.
- **Pilot Mountain 1c** - Habitat conditions appear to be limiting the growth of this herd. Currently, the herd is at the population objective, so management goals need to focus on maintaining the current herd size and limiting agricultural depredation.
- **Sawtooth 1d** - Habitat conditions appear to be limiting the growth of this herd as well. The herd is currently below the population objective. Management action should focus on improving habitat and natural water sources.

STRATEGIES FOR REMOVING BARRIERS AND REACHING UNIT MANAGEMENT OBJECTIVES

West Box Elder Elk Committee Input

- CWMU'S Subunit 1a: Maintain and enhance the existing CWMU's, and pursue ways to address the remaining elk that are depredating on cropland.

Actions to Remove Elk Committee Barriers

- Recommend continued support for elk management through the CWMU program. This includes the 6 current CWMU's, their acreage requirements, permit splits and the use of additional public/private checkerboard properties to manage this elk population as allowed in the CWMU administrative rule R657-37.

- Continue to encourage and support the damage control technicians to promptly respond and address elk damage complaints.

Habitat - All subunits would benefit from habitat improvement. The goals of habitat improvement should focus on redistributing elk away from agricultural areas and improving rangeland productivity. Subunit specific strategies are as follows:

- **Grouse Creek 1a** - Range improvements should be used to hold elk out of agricultural areas. Habitat treatments including pinyon-juniper projects, rangeland restoration, and invasive species management, may be used to meet these needs. Controlled burns may also be used in specific areas to improve habitat. Protection and improvement of natural water sources, as well as water development projects, may also be used to encourage elk to stay out of agricultural areas.
- **Hansel Mountain 1b** - The majority of elk habitat in this subunit is on private lands. Elk do spend time in public areas where habitat projects could be used to maintain and improve elk habitat. These projects may include pinyon-juniper treatments, water developments, and control of invasive species. Partnering with private landowners may be appropriate to improve herd health and encourage elk to stay in areas with high tolerance from the landowners.
- **Pilot Mountain 1c** - Elk would benefit from both summer and winter range habitat projects. Habitat projects focusing on improving rangeland production would provide more forage resources for the herd. Juniper treatments may be a good way to achieve this goal in winter range areas.
- **Sawtooth 1d** - Summer range habitat treatments would improve rangeland productivity and allow elk to increase to the population objective. Controlled burns of thick and dead conifer stands would increase understory and allow aspen regeneration to occur. Improving natural water sources would lead to healthy riparian zones for elk to use as well.

Population - All subunits have some barrier to overcome. On several subunits the barrier is the social aspect of depredation on agricultural land. On others the barrier is resource based due to inadequate habitat. Subunit-specific strategies to overcome barriers are as follows:

- **Grouse Creek 1a** - This subunit has social barriers to overcome due to depredation on agricultural land. Over the past decades CWMU's, depredation vouchers, hazing, and other strategies have been used successfully to prevent conflict with landowners. These strategies should remain in place to deal with conflicts as they arise. Timely responses to all depredation complaints will be used to address and resolve problems as they arise.
- **Hansel Mountain 1b** - This subunit also has significant social barriers. The increase of the population objective this year is a step in the right direction. To continue improving landowner relationships, the use of CWMU's, depredation vouchers, hazing, and prompt response to complaints is a priority. This population is over the agreed upon population objective and all efforts will be focused on removing elk to meet the objective.
- **Pilot Mountain 1c** - Both social and habitat barriers affect this population. Through the Landowner Association and depredation tags, the social barrier has been minimized. Tolerance for elk on private land is high in this unit. Habitat limitations affect the population as well. Improving habitat will allow the population to be maintained at the current objective and reduce depredation of agricultural land.
- **Sawtooth 1d** - The primary limiting factor in this subunit is habitat. Despite elk being in adjacent units and even using this unit, there has not been a summer herd in this unit. Improving habitat conditions will allow the herd to expand to the current objective. There are multiple agricultural operations in the lower elevations of this unit, so damage payments, mitigation vouchers, hazing, and CWMU's will be used to address and resolve any depredation issues.

Duration of This Management Plan - This Unit Management Plan was revised in 2023 following the revision of the Statewide Elk Management Plan. This Unit Management Plan will be revised after the next Statewide Elk Management Plan revision to ensure all current management tools are being used. Revision of this plan may also take place as needed to address future issues or incorporate new management strategies. Unit elk plan goals, objectives, recommendations and strategies are

constrained within the sideboards set in the Statewide Elk Plan, which supersedes unit plans. It is possible that changes to the Statewide Elk Plan may affect unit plans. Additionally, changes to Utah State Code and/or Administrative Rule may also affect elk plans.