

# **IDAHO ACTION PLAN (V4.0)**

**For**

**Implementing the Department of the Interior Secretarial Order 3362:**

**“Improving Habitat Quality in Western Big-Game Winter Range and Migration Corridors”**

**Prepared by:  
Idaho Department of Fish and Game  
Boise, Idaho 83707**

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## **PREFACE**

Secretarial Order No. 3362 (SO3362) (09 February 2018) directs the Department of Interior (DOI) to assist western tribes, private landowners, state fish and wildlife agencies, and state transportation departments with conserving and managing priority big game winter ranges and migration habitat. Per SO3362, the DOI invited state wildlife agencies in 2018 to develop action plans identifying big game priority areas and corresponding management efforts across jurisdictional boundaries.

The Idaho Department of Fish and Game (IDFG) and DOI jointly developed Idaho’s first version (V1.0) of the SO3362 Action Plan in 2018, which identified 5 Priority Areas for managing pronghorn, mule deer, and elk winter range and migration habitat. V2.0 and V3.0 were prepared in 2019 and 2020 with support from the Idaho Transportation Department (ITD). This V4.0 was prepared, with input from ITD, in response to DOI’s 7 April 2022 letter to IDFG (Appendix) requesting updated Priority Area information. Correspondingly, IDFG views this Action Plan as a living document to be reviewed and updated as needed, for example when new priorities emerge, revised information becomes available, and management efforts are completed.

Each version of Idaho’s Action Plan applies best available information to identify current and future needs for managing big game winter range and migration habitat, highlight ongoing and new priority management needs, leverage collaborative resources, and narrow focus to 5 Priority Areas. IDFG delineates Priority Areas based on the presence of key big game populations, locations of their corresponding winter ranges and migration habitats, and potential Risks/Challenges to these populations. When delineating Priority Areas, IDFG also places high importance on the availability and feasibility of near-term opportunities for voluntary actionable management efforts. During Action Plan updates, IDFG may therefore assign new Priority Areas (while deemphasizing existing Priority Areas) to emphasize near-term opportunities for actionable efforts with high likelihoods of achieving management objectives.

Most importantly, the Action Plan serves as a collaborative platform to benefit Idaho's migratory big game by (1) prioritizing the suite of actionable management efforts being pursued by a variety of partners, (2) combining and leveraging partner resources, and (3) fostering efficient and effective implementation of priority management efforts. Accordingly, V4.0 herein updates Idaho's current understanding of big game management issues, actionable management efforts, and Priority Areas, noting that some V4.0 actionable efforts were initiated prior to SO3362. SO3362-related grant funds that support conservation projects consistent with the Action Plan may be available, and potential partners should coordinate with IDFG staff to develop proposals for approval by the Director of IDFG.

V4.0 incorporates the following key information to focus cross-jurisdictional management of Idaho's priority big game winter ranges and migration habitat:

- The list of statewide priority management efforts has been updated based on currently understood needs and opportunities to address Idaho's highest priority big game migration and winter range Risks/Challenges during implementation of V4.0.
- Current ongoing efforts to address Risks/Challenges have been updated for each Priority Area based on presently ongoing management efforts initiated during earlier Action Plan versions.
- Actionable near-term efforts to address Risks/Challenges have been updated for each Priority Area based on newly identified management needs and previously identified management needs requiring additional unfunded effort during implementation of V4.0.
- Accomplishments for each Priority Area have been updated to describe to-date progress on past and current management efforts and research.
- Information for mule deer, elk, and pronghorn migrations in "*Ungulate Migrations of the Western United States, Volume 1*" (Kaufmann et al. 2020) and "*Ungulate Migrations of the Western United States, Volume 2*" (Kaufmann et al. 2022) has been included.

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## **INTRODUCTION**

### **Background**

Each year, many big game populations migrate between winter and summer seasonal ranges. Land uses (urban, agriculture, and energy development), infrastructure (e.g., roads and fences), and large-scale habitat changes (e.g., wildfire and noxious/invasive weeds) can degrade big game habitat and disrupt migrations, thereby reducing harvestable surpluses available for hunting. Big game hunting and tourism contributes greatly to the cultures and economies of western states including Idaho. Big game hunting and the related economy are facilitated by a transportation system that accesses Idaho's expansive public lands. Factors that reduce big game hunting opportunities can in turn negatively affect both Idaho's economy and cultural values.

Many of Idaho's big game populations, particularly pronghorn, mule deer, and elk, migrate between seasonal ranges to increase survival. Migrations often cross multiple jurisdictions including the DOI's Bureau of Land Management (BLM), US Department of Agriculture's (USDA) Forest Service (USFS), state, and private lands. Furthermore, migration habitats often traverse topographic, development, and infrastructure bottlenecks.

The following are examples of Idaho's annual big game migrations:

- Pronghorn travel over 100 miles between the Pioneer Mountains and Beaverhead Mountains.
- Mule deer and elk migrate from Yellowstone National Park (YNP) to the Sand Creek Desert.
- Mule deer, pronghorn, and elk populations throughout Idaho migrate between high-elevation mountain summer ranges to milder low-elevation winter ranges with south and west facing slopes.

To sustain big game populations at harvestable levels into the future, IDFG and stakeholders must understand, conserve, and manage the complete breadth of each species annual habitat requirements including seasonal ranges and migration habitat. IDFG and partners have studied Idaho's big game winter ranges and migrations for decades. However, new technologies and analyses are now allowing a better understanding of the full scope of Idaho's big game migrations. The purpose of Idaho's SO3362 Action Plan is therefore to focus and facilitate ongoing and future cross-jurisdictional and landscape-scale conservation of big game winter range and migration habitat in Idaho. Additionally, conserving and managing big game winter range and migration habitat at landscape scales will benefit a host of other wildlife species in Idaho including species of greatest conservation need (IDFG 2017).

### **Secretarial Order 3362**

U.S. Secretary of the Interior Ryan Zinke signed SO3362 on February 9, 2018. SO3362's goal is to conserve and improve winter range and migration habitat in the West for pronghorn, mule deer, and elk. SO3362 currently applies to the following states: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

SO3362 fosters collaboration among tribes, states, private landowners, and the DOI toward a common goal of sustaining robust big game populations at harvestable levels using the best available science to inform land management and habitat conservation actions. In particular, appropriate DOI bureaus are to partner with state wildlife agencies to improve the quality of big game winter range and migration habitat on DOI-managed federal lands in a manner that recognizes state authority to conserve and manage big game species and respects private property rights.

Moreover, SO3362 is intended to apply an all-lands ecological approach to conserving and improving (i.e., planning, management, and research) big game winter range and migration habitat on federal, state, and private lands including collaborating with the USDA through the USFS and Natural Resource Conservation Service (NRCS). The DOI is to prepare cross-jurisdictional Action Plans with state wildlife agencies that establish state-specified habitat management goals and estimated budgets for conserving and restoring priority winter range and migration habitat. Action Plans are to specify site-specific management activities with measurable outcomes for big game winter range and migration habitat such as the following examples:

- Post-wildfire rehabilitation.
- Treatment of exotic/invasive vegetation.
- Voluntary cooperative efforts with private landowners and state highway departments to address fences that impedes big game movements and migration.
- Avoidance of development in crucial winter range or migration habitat.
- Minimization of development that would fragment winter range and migration habitat.
- Limiting of disturbance and displacement of big game on winter range.
- Removal of encroaching trees within sagebrush ecosystems.

SO3362 also expands and enhances SO3356, which directs the DOI to collaborate with state, tribal, and territorial fish and wildlife agencies to attain or sustain wildlife population goals and use the best available science to avoid or minimize potential negative impacts to wildlife from energy, transmission, or other relevant projects. Conserving pronghorn, mule deer, and elk winter ranges and migration habitat across jurisdictions will help promote the overall ecological integrity of terrestrial landscapes in the West.

### **Federal Lands in Idaho**

The DOI is the largest public land manager in the US. Much of the DOI-managed lands are in western states and support big game, which contributes greatly to local economies through hunting and tourism. The DOI has broad stewardship responsibilities to manage public lands held in trust and maintain associated big game populations. Through SO3362, the DOI also has funding resources and scientific capabilities available to assist states, including Idaho, with conserving big game winter range and migration habitat on both the West's extensive public lands and other ownerships. Accordingly, the DOI is supporting voluntary collaborative efforts by IDFG, private landowners, and other entities to conserve and restore state-priority big game winter range and migration habitat on both public and private lands in Idaho.

Within Idaho, almost 64% (approximately 34 million acres) of the state is comprised of federal lands that support Idaho's native wildlife, much of which also provides excellent hunting opportunities, including winter range and migration habitat for pronghorn, mule deer, and elk. The DOI's BLM, US Fish & Wildlife Service (USFWS), and National Park Service (NPS) manage a sizable portion of the federal lands within Idaho. Of the 34 million acres of federal lands in Idaho, the BLM manages more than 12 million acres for multiple uses. BLM's land management and conservation of big game winter range and migration habitat includes wildfire restoration, fence upgrades and removal, noxious/invasive weed treatments, and native vegetation seedings.

The USFWS manages seven national wildlife refuges in Idaho (totaling 87,698 acres), most of which support big game and allow public hunting. The NPS manages 7 national park units in Idaho (totaling 508,196 acres), including Craters of the Moon National Monument and Preserve and part of YNP, both of which support important big game seasonal and migratory habitats. The NPS conserves big game winter range and migration habitat with measures including habitat mapping and noxious/invasive weed treatments.

In addition to the DOI, the USDA's USFS manages 16 national forests in Idaho comprising more than 20 million acres. Most national forest lands in Idaho are open to hunting. IDFG and USFS biologists routinely collaborate on forest and range management to perpetuate the abundant big game populations and many additional native wildlife species supported by the diversity of habitats on national forest lands.

## **Transportation**

Transportation and wildlife management needs often interact requiring close coordination between state wildlife and transportation agencies relative to respective department missions and responsibilities. To facilitate this inter-departmental cooperation in Idaho, IDFG and ITD renewed their Memorandum of Understanding in 2020 to increase public safety and enable wildlife passage across highways. As a result, IDFG and ITD routinely cooperate to address potential wildlife-vehicle conflicts, including the following examples:

- IDFG provides technical assistance upon ITD request about wildlife-vehicle conflicts to inform proposed highway project designs and decisions.
- IDFG and ITD cooperate to collect and share wildlife roadkill data that is stored in the IDFG-maintained database hosted on the s Idaho Fish and Wildlife Information System (IFWIS).
- IDFG maintains the Idaho Conservation Planner containing wildlife species distribution information to assist ITD decision-making about proposed highway projects.
- IDFG shares telemetry locations where big game regularly cross highways.
- IDFG and ITD collaborate to monitor the effectiveness of wildlife crossing structures.

## **STATEWIDE PRIORITY MANAGEMENT EFFORTS**

Consistent with SO3362, IDFG identified 5 Priority Areas for conserving big game winter range and migration habitat. Action Plan updates identify near-term (i.e., 1-3 years) actionable management efforts to address winter range and migration habitat needs within each Priority Area. Statewide priorities are then selected from the near-term actionable management efforts identified within Priority Areas.

The following list comprises V4.0's statewide priority management efforts based on the best available information:

1. Statewide – Phase 2 SO3362 State Action Plan Coordinator: Provide IDFG with ongoing personnel and operating capacity to support stakeholders with Technical Assistance and implement voluntary cooperative winter range and migration habitat management projects with partners in all Priority Areas; estimated unfunded cost = \$200,000/year.
2. Smokey-Boise Complex Priority Area – Support ITD and Federal Highway Administration (FHWA) construction of the big game overpass and funnel fencing on SH21 at Cervidae Peak; estimated unfunded cost = \$200,000.
3. Rocky Point Priority Area – Support ITD design and construction of big game crossing structures and funnel fencing on SH30 at Rocky Point; estimated unfunded cost = to-be-determined.
4. Lemhi Valley Complex Priority Area – Implement projects to treat invasive/noxious weeds on private and public lands that support big game winter range; estimated unfunded cost = to-be-determined.
5. Statewide – Develop a reliable long-term funding strategy to maintain big game funnel fencing associated with transportation projects (e.g., big game crossing structures); estimated unfunded cost = to-be-determined.

For V2.0, increasing IDFG's technical assistance capacity to implement the Action Plan was the most important statewide priority management effort. IDFG and the Mule Deer Foundation developed a successful National Fish and Wildlife Foundation proposal to fund a State Action Plan Coordinator for three years. Considering the importance of this capacity for successful implementation of earlier versions of Idaho's Action Plan, seeking a second phase of funding for the State Action Plan Coordinator is again highest the statewide priority for V4.0.

## **BIG GAME WINTER RANGE AND MIGRATION PRIORITY AREAS**

Priority Areas – This V4.0 Action Plan maintains the same 5 Priority Areas from V3.0. The following V4.0 subsections update the status of the 5 Priority Areas (Figure 1), including up-to-date accomplishments and new information for current and near-term actionable efforts to address Risks/Challenges:

- Smoky-Boise Complex
- Panhandle Complex
- Rocky Point
- Big Desert-Mountain Valley Complex

- Lemhi Valley Complex

Contents – Each V4.0 Priority Area subsection contains summaries of the following topics requested by DOI, including project accomplishments and maps:

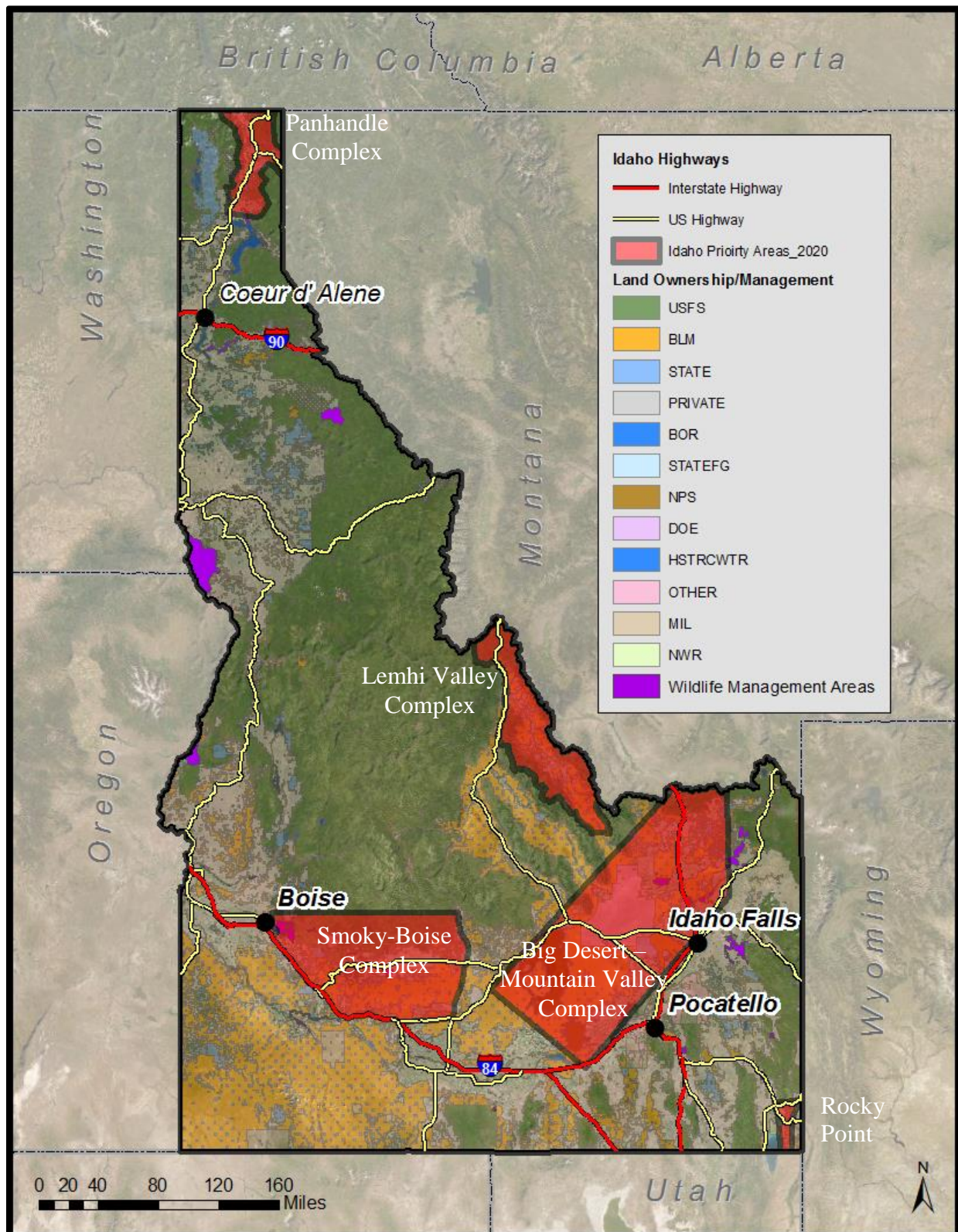
1. Why the priority area was selected
2. Spatial location (including map)
3. Habitat types
4. Important stopover areas
5. Landownership
6. Risks/Challenges
7. Current efforts to address Risks/Challenges (updated for V4.0)
8. Actionable near-term efforts to address Risks/Challenges (updated for V4.0)
9. Accomplishments (updated for V4.0)
10. Other issues for awareness (if applicable)

Cost Estimates – Estimated unfunded remaining costs for “Current and ongoing efforts addressing Risks/Challenges” and estimated unfunded costs for “Actionable near-term efforts to address Risks/Challenges” are provided if available. Fully funded efforts are also noted. Otherwise, cost estimates are currently unavailable if not provided and corresponding management efforts listed within a Priority Area are presently unfunded.

Priority Area Maps – Figure 1 provides a statewide overview of Priority Area locations. Figure 1 also provides the legend of land ownership displayed on each Priority Area map, which is based on BLM Standard Publication colors for surface management agencies. Figures 2-6 provide individual V4.0 Priority Area maps. Migration routes are available in *Ungulate Migrations of the Western United States, Volume 1* (Kaufmann et al. 2020) and *Ungulate Migrations of the Western United States, Volume 2* (Kaufmann et al. 2022), which include many of IDFG’s mule deer, elk, and pronghorn migrations mapped to date with GPS telemetry data since Action Plan V3.0. These maps currently comprise 39 migrations (18 mule deer, 15 elk, and 5 pronghorn), of which 22 are included in IDFG’s 5 Priority Areas. IDFG will continue to update statewide analyses to improve the mapping of winter range, migration habitat, and stopover locations for mule deer, elk, and pronghorn. Priority Area extents and map contents are therefore considered provisional and for current V4.0 planning purposes within a Priority Area. Results of IDFG’s statistical analyses of big game winter range, migration habitat, and stopover areas may be used to refine future Priority Area map updates. Hence, V4.0 Priority Area maps are subject to change and updating in the future as new information becomes available.



**Figure 1. Overview of Idaho's Big Game Migration and Winter Range Habitat Priority Areas (see above Priority Area Map information and qualifying statements).**



## Smoky-Boise Complex (Figure 2)

### 1. Why area was selected:

- Contains Idaho's largest mule deer population (approximately 40,000 wintering mule deer), resident and migratory elk populations, and an expanding pronghorn population.
- Includes extensive big game winter range and migration habitat linking winter and summer ranges.
- Wildlife-vehicle conflicts occur with US20, SH21, and SH75.

### 2. Spatial location:

- Southwest and south-central Idaho
  - Winter Range – South-facing slopes in the Boise foothills (including the Boise River Wildlife Management Area [WMA]) eastward across the Bennett Mountain foothills to approximately Shoshone, Idaho and south to I84.
  - Migration Habitat – Transition areas between winter range and summer range to the north and east in the Boise River and Big Wood River watersheds, including crossings along US20 (e.g., Cat Creek Summit, Camp Creek, Poison Creek, and Wildhorse Creek) and SH21 (e.g., Lucky Peak Reservoir).
  - Mapped migrations in “*Ungulate Migrations of the Western United States, Volume 1*” (Kaufmann et al. 2020) and “*Ungulate Migrations of the Western United States, Volume 2*” (Kaufmann et al. 2022):
    - Bennett-Teapot Dome Mule Deer
    - Blacks Creek-Danskin Mule Deer
    - Boise River Mule Deer
    - Pioneer Reservoir Mule Deer
    - Bennett-Teapot Dome Elk
    - Blacks Creek-Danskin Elk
    - Boise River Elk
    - McKinney Butte Elk
    - Pioneer Reservoir Elk
    - Twin Springs Elk
    - Gooding Pronghorn
    - Mountain Home Pronghorn
    - Owinza Pronghorn
- Notes
  - Spatial data for the IDFG's mapped migrations are available upon request: <https://idfg.idaho.gov/species/request-data>.
  - GPS collaring of big game on summer range (outside the Priority Area) is needed to understand the full extent of migration patterns.
  - Priority Area extents and map contents are provisional and display IDFG's current understanding of available information; statewide statistical analyses are currently underway to improve winter range, migration, and stopover location mapping; and V4.0 Priority Area maps are subject to change as new information becomes available.

### 3. Habitat types: Primarily sagebrush steppe in the Owyhee Uplands ecological section (IDFG 2017).

4. *Important stopover areas:*
  - Camas Prairie.
  - South Soldier Mountains.
  - Moonstone Mountain.
5. *Landownership:* Private, BLM, USFS, US Army Corps of Engineers (USACE), and State-of-Idaho.
6. *Risks/Challenges:*
  - Winter range degradation due to wildfire and noxious/invasive weeds.
  - Urban, residential, infrastructure, and other land-use changes within winter range and migration habitat.
  - Energy and associated infrastructure development within winter range and migration habitat.
  - Fencing designs that disrupt big game movements.
  - Wildlife-vehicle conflicts within winter range and migration habitat.
7. *Current ongoing efforts to address Risks/Challenges:*
  - Technical Assistance
    - Guidance to land/resource management agencies (e.g., BLM, USFS, and IDL) and private landowners upon request regarding habitat management, including for example noxious/invasive weed treatments and wildlife friendly fencing projects; estimated unfunded cost = to-be-determined.
    - Responses to requests for input from regulatory agencies (e.g., BLM, USFS, IDL, ITD, FERC, BOR, IDWR, and counties) regarding potential project effects to big game populations and habitat, including for example water, energy, infrastructure, and transportation projects; estimated unfunded cost = to-be-determined.
    - Coordination with and support for ITD upon request to assist with assessing and addressing potential wildlife-vehicle conflicts; estimated unfunded cost = to-be-determined.
  - Winter Range and Migration Habitat
    - Post wildfire restoration and noxious/invasive weed treatment projects on IDFG's Boise River WMA, USFS & BLM-managed lands, and IDL-managed lands; estimated unfunded cost = to-be-determined.
    - Post-wildfire restoration and noxious/invasive weed treatment projects in the Bennett Mountain foothills and Danskin Peak area on IDL and BLM-managed lands; estimated unfunded cost = to-be-determined.
    - Pronghorn & mule deer GPS telemetry study estimating potential winter range and migration habitat impacts from renewable energy projects; estimated unfunded cost = \$100,000/year.
  - Transportation Mitigation
    - IDFG routine monitoring and maintenance of the existing SH21 wildlife underpass and funnel fence; estimated unfunded cost = \$6,000/year.
    - Collaborative project (including a diversity of private, local, state, and federal contributors) to construct the SH21 Cervidae Peak wildlife overpass; estimated unfunded cost = \$200,000.

- Collaborative pronghorn & mule deer GPS telemetry study (including BLM, Blaine County, and IDFG) describing migration and interactions with US20, SH75, and SH24; estimated unfunded cost = \$30,000/year.
- Continued monitoring of wildlife use under the new US20 free-span bridges that replaced culverts at Rock and Willow creeks; estimated unfunded cost = fully funded.

8. *Actionable near-term efforts to address Risks/Challenges:*

- Technical Assistance
  - Guidance as requested by land/resource management and regulatory agencies.
- Winter Range and Migration Habitat
  - Habitat enhancement project proposed for the Danskin Peak area to include locally sourced shrub, grass, and forb plantings, hazardous fence removal, beaver translocations, and noxious/invasive weed treatments on IDL, USFS, and private lands; estimated unfunded cost = to-be-determined.
  - Participation with partners (e.g., private landowners, BLM, USFS, IDL, NRCS, and NGOs) in voluntary cooperative habitat restoration and enhancement projects as opportunities occur and are appropriate including for example post-wildfire restoration, shrub planting, noxious/invasive weed treatments, and wildlife friendly fencing; estimated unfunded cost = to-be-determined.
  - Participation with partners (e.g., private landowners, BLM, USFS, IDL, NRCS and NGOs) in voluntary cooperative conservation easements as opportunities occur and are appropriate; estimated unfunded cost = to-be-determined.
  - Develop and implement voluntary cooperative big game habitat management projects with partners in coordination with existing habitat conservation programs (e.g., NRCS Farm Bill programs and USFWS Partners for Fish and Wildlife Program).
- Transportation Mitigation
  - IDFG pre- and post-construction monitoring for the SH21 wildlife overpass; estimated unfunded cost = to-be-determined.
  - Cooperative evaluation with private landowners, counties, and ITD to assess funnel fencing opportunities to reduce wildlife-vehicle conflict and improve motorist safety for the new US20 bridges at Rock and Willow creeks; estimated unfunded cost = to-be-determined.
  - ITD-IDFG cooperative project to develop designs to replace existing US20 culverts with bridges at Camp, Wild Horse, and Poison creeks to reduce wildlife-vehicle conflict and improve motorist safety; estimated unfunded cost = \$1.2M (grant application for funding submitted in 2022).

9. *Accomplishments since V1.0 to present:*

- Winter Range
  - Creation of 9 miles of forage kochia fuel breaks on private lands adjoining the BLM Paradigm fuel break project in the Mayfield area (300 acres improved in 2019).

- Fence removal, noxious/invasive weed treatments, and revegetation on private and IDL lands in the Danskin Peak area (1,210 acres improved from 2019-2022).
  - Sagebrush and bitterbrush revegetation after the 2018 Dog Creek Fire – see Photos 1 and 2 below showing sagebrush seedlings and restoration crew hand-planting sagebrush at Dog Creek (174,000 sagebrush and bitterbrush planted on 3,500 acres in 2019 & 2020).
  - Completed 1,300 acres of herbicide seed-bed treatment on private lands damaged by wildfire in August 2019; subsequently USFWS has completed drill/aerial seeding treatments.
  - Treatment of noxious/invasive weeds and annual invasive grasses on IDFG’s Wildlife Management Areas (2,100 acres improved).
  - All projects combined resulted in 6,633 acres improved between years 2019 – 2022 (partners include USFWS, IDFG, Mule Deer Foundation, BLM, and private landowners).
  - Migration Habitat
    - ITD and IDFG completed cooperative pilot study for US20 testing a smartphone application to enhance roadkill reporting.
    - Converted 36 miles of fence to wildlife friendly standards on state and private lands (partners included IDFG, USFWS, private landowners, and Idaho Fish and Wildlife Foundation).
    - Maintained 2 miles of funnel fence and jump-outs associated with the SH21 underpass.
  - Transportation Mitigation
    - ITD replacement of culverts with bridges on US20 at Rock and Willow creeks, which also restored previously blocked fish passage.
    - FHWA and ITD 100% design completion for the SH21 overpass and funnel fencing at Cervidae Peak in the Boise River WMA, construction contract awarded, and construction scheduled for 2023.
  - Research
    - Deployment of 70 pronghorn GPS collars; 50 GPS collars were part of a cooperative project with IDFG, BLM, and Blaine County’s Land, Water, and Wildlife Conservation Grant to study pronghorn migration and interactions with US20, SH75, and SH24.
    - Deployment 124 elk and 283 mule deer GPS collars 2019 – 2021.
10. *Other issues for awareness:* This Priority Area encompasses the fastest growing human population center in Idaho. The expanding population and associated increasing outdoor recreational activities can displace migrating and wintering big game and degrade crucial winter range with increased wildfire, noxious/invasive weeds, and soil erosion.



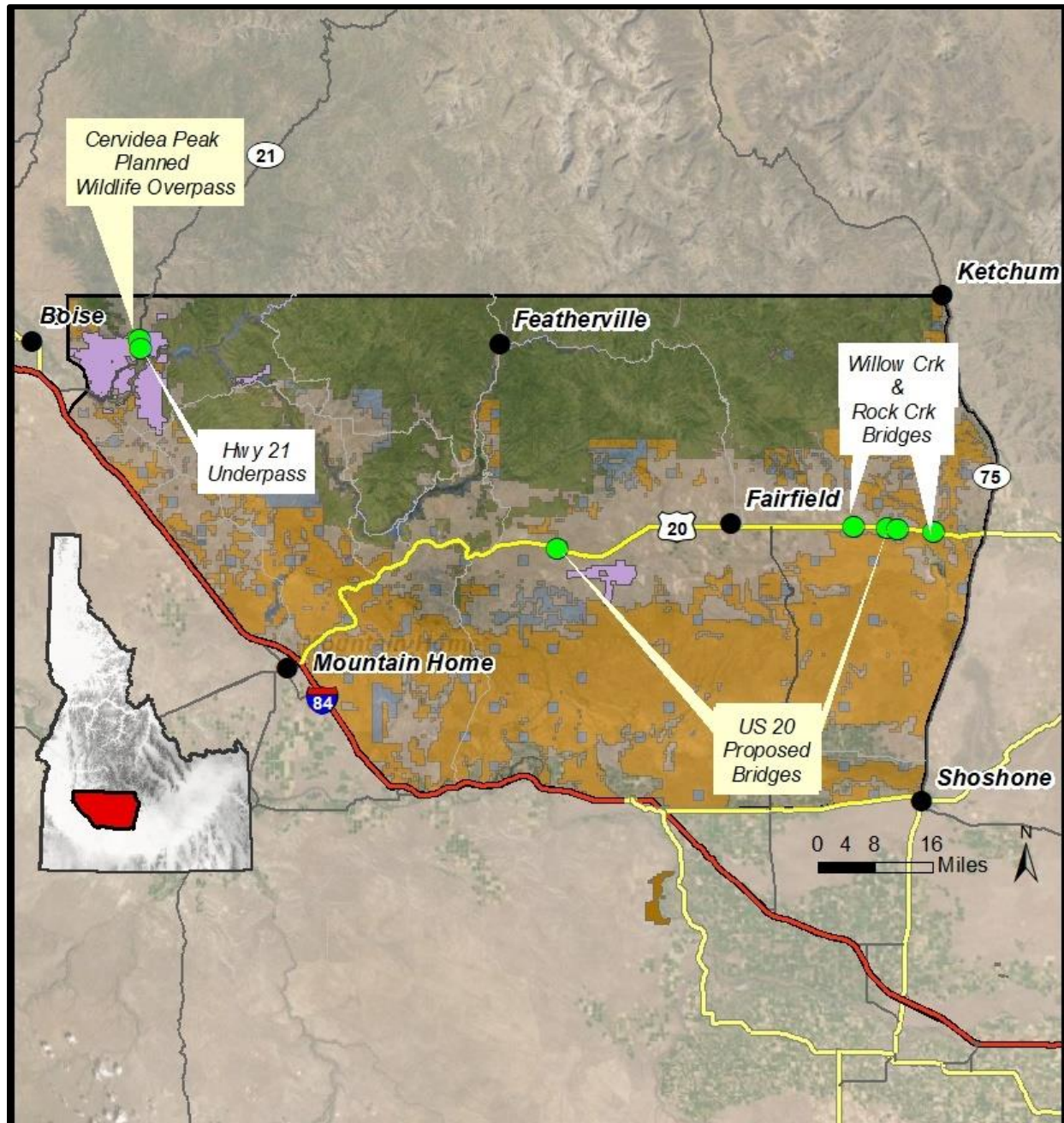


**Photo 1. Sagebrush seedlings used to restore winter range after the Dog Creek Fire.**



**Photo 2. Mule Deer Foundation crew hand-planting sagebrush seedlings used to restore winter range after the Dog Creek Fire.**

**Figure 2. Smoky-Boise Complex Priority Area (see above Priority Area Map information and qualifying statements).**





## **Panhandle Complex (Figure 3)**

### *1. Why area was selected:*

- Contains big game winter range and potential connectivity habitat linking the Selkirk, Purcell, and Cabinet mountains.
- Wildlife-vehicle conflicts occur with US95 and US2.
- Approximately \$11,000,000 has been invested in securing Forest Legacy Program conservation easements on more than 8,000 acres of private timberlands including winter range adjacent to US95 & US2.

### *2. Spatial location:*

- Northern Idaho between the Selkirk, Cabinet, and Purcell mountains from the Canadian border south along the Kootenai River and US95 and east along US2 to the Montana state border.
  - Winter Range – Low elevation areas (including the McArthur Lake WMA) along the Kootenai River and US95/US2 transportation corridors.
  - Migration Habitat – Big game movements are observed across US95 and US2, but specific migration habitat is currently unknown.
- Notes
  - A GPS telemetry study is underway in the Priority Area to describe elk movements and identify migration habitat.
  - Priority Area extents and map contents are provisional and display IDFG's current understanding of available information; statewide analyses are currently underway to improve winter range, migration, and stopover location mapping; and V4.0 Priority Area maps are subject to change as new information becomes available.

### *3. Habitat types:* Okanagan Highlands and Flathead Valley ecological sections (IDFG 2017) containing sub-alpine to mixed-use valley habitats including forested, agriculture, rural residential, riparian and small lacustrine systems, and managed and natural wetlands.

### *4. Important stopover areas:*

- McArthur Lake WMA.
- Kootenai National Wildlife Refuge.
- Kootenai Tribe of Idaho (KTOI) Wildlife Mitigation Properties.
- Ball Creek Ranch Preserve owned by The Nature Conservancy (TNC).
- Boundary-Smith Creek WMA.
- Mid-to-low elevation areas on Kaniksu National Forest.
- IDL and private timberlands in the Selkirk, Purcell, and Cabinet mountains under Forest Legacy Program conservation easements.

### *5. Landownership:* Private timberlands, private, KTOI, State-of-Idaho, USFWS, BLM, and USFS.

### *6. Risks/Challenges:*

- Residential development and land-use changes within winter range and migration habitat.
- Forest succession reducing the abundance of early seral stage forest communities within winter range.
- Wildlife-vehicle conflicts within winter range and migration habitat.



- Wildlife-train conflicts within winter range.
7. *Current ongoing efforts to address Risks/Challenges:*
- Technical Assistance
    - Guidance to land/resource management agencies (e.g., BLM, USFS, and IDL) and private landowners upon request regarding habitat management, including for example noxious/invasive weed treatments and wildlife friendly fencing projects; estimated unfunded cost = to-be-determined.
    - Responses to requests for input from regulatory agencies (e.g., BLM, USFS, IDL, ITD, FERC, BOR, IDWR, and counties) regarding potential project effects to big game populations and habitat, including for example water, energy, infrastructure, and transportation projects; estimated unfunded cost = to-be-determined.
    - Coordination with and support for ITD upon request to assist with assessing and addressing wildlife-vehicle conflicts; estimated unfunded cost = to-be-determined.
  - Winter Range and Migration Habitat
    - IDFG vegetation enhancements (i.e., forest management, plantings, food plots) on McArthur Lake WMA; estimated unfunded cost = fully funded.
    - Voluntary cooperative habitat restoration and enhancement projects including partnerships among USFS, private, State-of-Idaho, TNC, Tribal, and USFWS; estimated unfunded cost = to-be-determined.
    - Voluntary cooperative partnerships and conservation easements for big game winter range and migration habitat (e.g., private landowners including Stimson, Hancock and Molpus timber companies; agencies including IDL; and NGOs including TNC) ; estimated unfunded cost = to-be-determined.
  - Transportation Mitigation
    - IDFG and ITD cooperative monitoring of US95 wildlife underpasses near Copeland, Idaho; estimated unfunded cost = fully funded.
    - IDFG and ITD cooperative roadkill data collection to assess wildlife-vehicle collision frequency and locations on US95 and US2; estimated unfunded cost = fully funded.
    - Dynamic Electronic Messaging Boards during spring and fall movement periods warning drivers to be observant of big game on US95 and US2; estimated unfunded cost = fully funded.
8. *Actionable near-term efforts to address Risks/Challenges:*
- Technical Assistance
    - Guidance as requested by land/resource management and regulatory agencies.
  - Winter Range and Migration Habitat
    - Participation with partners (e.g., private landowners, BLM, USFS, IDL, NRCS, and NGOs) in voluntary cooperative habitat restoration and enhancement projects as opportunities occur and are appropriate, including for example forest management on private, TNC, State-of-Idaho, and USFS lands; estimated unfunded cost = to-be-determined.
    - Participation with partners (e.g., private landowners, BLM, USFS, IDL, NRCS, and NGOs) in voluntary cooperative conservation easements as

opportunities occur and are appropriate; estimated unfunded cost = to-be-determined.

- Develop and implement voluntary cooperative big game habitat management projects with partners in coordination with existing habitat conservation programs (e.g., NRCS Farm Bill programs and USFWS Partners for Fish and Wildlife Program).
- Transportation Mitigation
  - ITD design and construction of a new bridge at McArthur Lake WMA associated with the US95 Realignment Project; estimated unfunded cost = to-be-determined.
  - IDFG support as requested by ITD for the US95 Realignment Project; estimated unfunded cost = fully funded.
  - IDFG pre- and post-construction big game monitoring associated with ITD's US95 Realignment Project; estimated unfunded cost = to-be-determined.
  - IDFG and ITD cooperative evaluation and potential construction of funnel fencing within project limits to enhance the efficiency of ITD's US95 Realignment Project; estimated unfunded cost = to-be-determined.

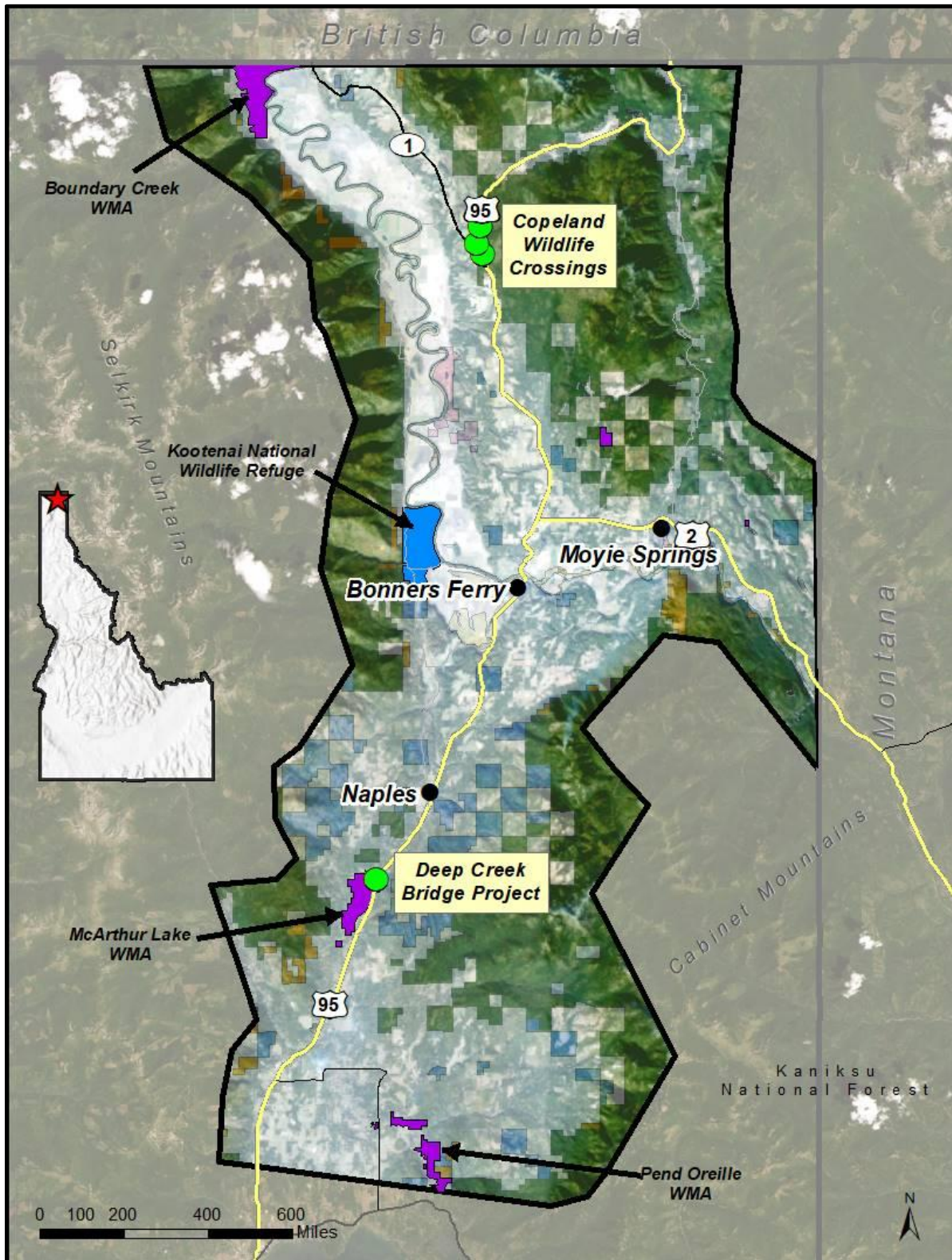
9. *Accomplishments since V1.0 to present:*

- Winter Range
  - IDFG and USFS treatment of forested stands to promote ecological objectives, including habitat enhancement of winter range (7,150 acres improved) through the Collaborative Forest Landscape Restoration Program (CFLR).
  - IDFG conifer removal from aspen and cottonwood stands on McArthur Lake WMA (10 acres treated).
  - Vegetation plantings to provide forage for wintering big game (135 acres improved).
  - All projects combined improved 8,134 acres during 2019-2022 (partners include IDFG, USFS, CFLR, and Kootenai Valley Resource Initiative).
- Transportation Mitigation
  - IDFG and ITD cooperative assessment of ITD's existing US95 Copeland wildlife crossings and 2022 construction of 1.8 additional miles of additional funnel fencing.
- Research
  - GPS-collaring and monitoring of 28 elk and 3 mule deer during 2019-2022 to describe big game use of winter range and migration habitat.

10. *Other issues for awareness:*

- Railroads adjacent to US95 and US2 cause big game mortalities and potentially impede wildlife movements, particularly during winter.

**Figure 3. Panhandle Complex Priority Area (see above Priority Area Map information and qualifying statements).**



## Rocky Point (Figure 4)

### 1. Why area was selected:

- Contains more than 6,000 mule deer that migrate twice annually across Rocky Point between winter and summer ranges.
- Wildlife-vehicle conflicts occur with US30.

### 2. Spatial location:

- Southeast Idaho including the Bear River, Bear Lake Plateau, and southern Caribou Mountains.
  - Winter Range – Low elevation areas on the Bear Lake Plateau primarily south of US30.
  - Migration Habitat – Transition areas linking winter range and summer range north of US30 in the Caribou Mountains.
  - Mapped migration in “*Ungulate Migrations of the Western United States, Volume 2*” (Kaufmann et al. 2022):
    - Bear Lake Plateau Mule Deer
- Notes
  - Spatial data for the IDFG’s mapped migrations are available upon request: <https://idfg.idaho.gov/species/request-data>.
  - A GPS telemetry study is underway in the Priority Area to better describe mule deer migrations.
  - Priority Area extents and map contents are provisional and display IDFG’s current understanding of available information; statewide analyses are currently underway to improve winter range, migration, and stopover location mapping; and V4.0 Priority Area maps are subject to change as new information becomes available.

### 3. Habitat types: Sagebrush steppe in the Bear Lake and Overthrust Mountains ecological sections (IDFG 2017).

### 4. Important stopover areas:

- Bear Lake Plateau.
- Seasonal transition range between US30 and US89.

### 5. Landownership: Private, State-of-Idaho, BLM, USFS, and USFWS.

### 6. Risks/Challenges:

- Land-use changes within winter range and migration habitat.
- Energy and associated infrastructure development within winter range and migration habitat.
- Fencing designs that disrupt big game movements.
- Wildlife-vehicle conflicts within winter range and migration habitat.
- Wildlife-train conflicts within winter range and migration habitat.

### 7. Current ongoing efforts to address Risks/ Challenges:

- Technical Assistance
  - Guidance to land/resource management agencies (e.g., BLM, USFS, and IDL) and private landowners upon request regarding habitat management, including for example noxious/invasive weed treatments and wildlife friendly fencing projects; estimated unfunded cost = to-be-determined.

- Responses to requests for input from regulatory agencies (e.g., BLM, USFS, IDL, ITD, FERC, BOR, IDWR, and counties) regarding potential project effects to big game populations and habitat, including for example water, energy, infrastructure, and transportation projects; estimated unfunded cost = to-be-determined.
  - Coordination with and support for ITD upon request to assist with assessing and addressing potential wildlife-vehicle conflicts; estimated unfunded cost = to-be-determined.
  - Winter Range and Migration Habitat
    - Cooperative projects with private landowners to upgrade fences to wildlife friendly standards; estimated unfunded cost = fully funded.
  - Transportation Mitigation
    - IDFG and ITD cooperative roadkill data collection to assess wildlife-vehicle collision frequency and locations to inform US30 crossing structure position and design; estimated unfunded cost = fully funded.
    - IDFG camera monitoring to document important locations and minimum mule deer numbers crossing US30 during migration; estimated unfunded cost = fully funded.
8. *Actionable near-term efforts to address Risks/Challenges:*
- Technical Assistance
    - Guidance as requested by land/resource management and regulatory agencies.
    - Support big game studies and potential mitigation measures for proposed renewable energy projects.
  - Winter Range and Migration Habitat
    - Participation with partners (e.g., private landowners, BLM, USFS, IDL, NRCS, and NGOs) in voluntary cooperative habitat restoration and enhancement projects as opportunities occur and are appropriate, including for example wildlife friendly fencing, noxious/invasive weed treatments, and winter range improvements; estimated unfunded cost = to-be-determined.
    - Participation with partners (e.g., private landowners, BLM, USFS, IDL, NRCS, and NGOs) in voluntary cooperative conservation easements as opportunities occur and are appropriate; estimated unfunded cost = to-be-determined.
    - Develop and implement voluntary cooperative big game habitat management projects with partners in coordination with existing habitat conservation programs (e.g., NRCS Farm Bill programs and USFWS Partners for Fish and Wildlife Program).
  - Transportation Mitigation
    - ITD design and construction of the US30 Rocky Point wildlife crossing and funnel fencing project; estimated unfunded cost = to-be-determined.
    - IDFG support as requested by ITD for the Rocky Point project; estimated unfunded cost = fully funded.
    - IDFG pre- and post-construction effectiveness monitoring of the Rocky Point wildlife crossing structures and funnel fencing; estimated cost = \$75,000/year.
      - Short-interval (two locations/hour) GPS telemetry study of mule deer movements.

- Roadkill data collection to assess wildlife-vehicle collision frequency and locations.
- Camera monitoring to document minimum mule deer numbers using US30 crossing structures.
- IDFG and ITD cooperative assembly of big game movement and roadkill data for US89; estimated unfunded cost = to-be-determined.

9. *Accomplishments since V1.0 to present:*

- Winter Range
  - Removed 7.25 miles of hazardous fencing and converted to wildlife friendly fencing on private land on Bear Lake Plateau in critical mule deer winter range and sage grouse habitat – see Photo 3 below of the newly constructed wildlife friendly fence. Collaborative partners included private landowners, IDFG, USFWS, Mule Deer Foundation/Cabela's Bass Pro Shops, and the Idaho Governor's Office of Species Conservation.
- Transportation Mitigation
  - In 2019, IDFG and partners secured \$1.2 million and acquired conservation easements on 1,800 acres allowing ITD to proceed with wildlife crossing design and engineering.
  - In 2020, technical assistance site-visit by partners to provide input on the crossing locations, design considerations, and fence locations for US30 wildlife crossing structures and funnel fencing.
  - ITD and IDFG public outreach to local communities, city council, and county commission.
  - Included in Idaho's Transportation Investment Plan for FY2025 construction.
- Research
  - GPS-collared 24 elk during winters 2019 & 2020.
  - GPS-collared 66 adult mule deer on winter range in 2020 & 2021 to aid siting of the Rocky Point wildlife crossing structures.
  - ITD staff assisting IDFG with chronic wasting disease sampling of roadkill mule deer.

10. *Other issues for awareness:*

- The railroad adjacent to US30 causes big game mortalities.
- The accumulation of mule deer carcasses along US30 from wildlife-vehicle collisions causes incidental wildlife mortality, including for example 12 eagles killed by wildlife-vehicle collisions within two years.

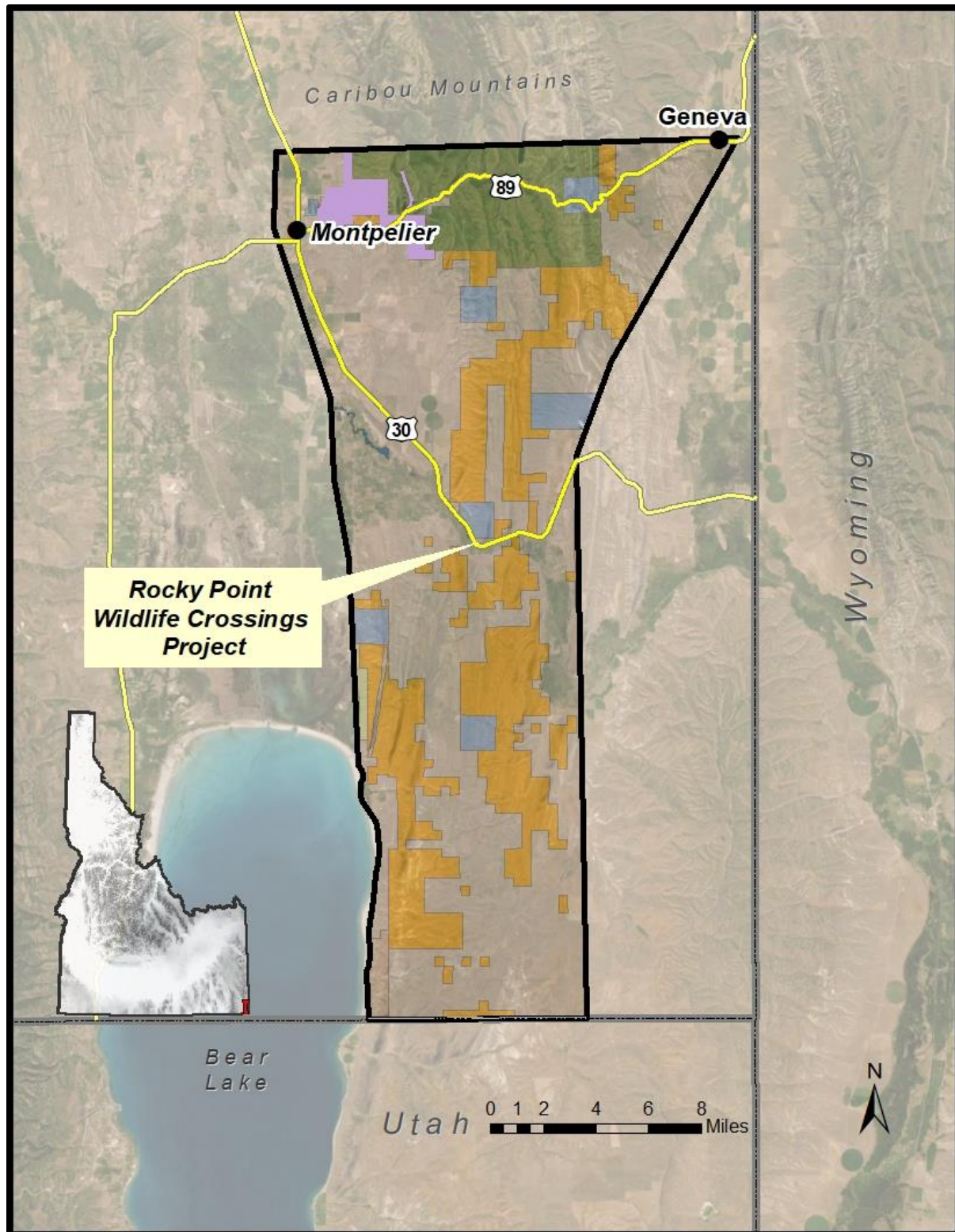




**Photo 3. New wildlife friendly fence built after removing woven wire fence on Bear Lake Plateau in 2021.**



**Figure 4. Rocky Point Priority Area (see above Priority Area Map information and qualifying statements).**





## Big Desert–Mountain Valley Complex (Figure 5)

### 1. Why area was selected:

- Contains important winter range for migratory pronghorn, mule deer, and elk.
- Potential big game migration habitat is impeded by I15.
- Wildlife-vehicle conflicts occur on I15.

### 2. Spatial location:

- Upper Snake River Plain in eastern Idaho northward to the Montana border.
  - Winter Range – Low elevation sagebrush-steppe habitats within the Big Desert, Birch Creek, Sand Creek Desert, and adjacent to the I15 transportation corridor.
  - Migration Habitat – Transition areas linking winter range with elk and pronghorn summer ranges to the east in the Greater Yellowstone Ecosystem and west in the Little Wood, Little Lost, and Big Lost river watersheds.
  - Mapped migrations in “*Ungulate Migrations of the Western United States, Volume 2*” (Kaufmann et al. 2022):
    - Reno Mule Deer
    - Upper Snake River Plain Pronghorn
    - Medicine Lodge Elk
    - Reno Elk
  - Mapped draft migrations for forthcoming *Ungulate Migrations of the Western United States, Volume 3* (unpublished).
    - Sand Creek Mule Deer
    - Sand Creek Elk
    - Shotgun Valley Pronghorn
- Notes
  - Spatial data for the IDFG’s mapped migrations are available upon request: <https://idfg.idaho.gov/species/request-data>.
  - To focus future actionable management efforts, the spatial extent of this particularly large Priority Area may be modified in later Action Plan versions based on results of ongoing research projects including GPS telemetry.
  - Priority Area extents and map contents are provisional and display IDFG’s current understanding of available information; statewide analyses are currently underway to improve winter range, migration, and stopover location mapping; and V4.0 Priority Area maps are subject to change as new information becomes available.

### 3. Habitat types: Sagebrush steppe in the Snake River Basalts ecological section (IDFG 2017).

### 4. Important stopover areas: Stopover areas will be identified with ongoing analyses.

### 5. Landownership: Private, BLM, US Department of Energy, Craters of the Moon National Monument and Preserve (NPS), and State-of-Idaho.

### 6. Risks/Challenges:

- Winter range degradation due to wildfire and noxious/invasive weeds.
- Land-use changes within winter range and migration habitat.
- Fencing designs that disrupt big game movements.
- Wildlife-vehicle conflicts, including I15 big-game collisions and movement impediments, within winter range and migration habitat.

7. *Current ongoing efforts to address Risks/Challenges:*

- Technical Assistance
  - Guidance to land/resource management agencies (e.g., BLM, USFS, and IDL) and private landowners upon request regarding habitat management, including for example noxious/invasive weed treatments and wildlife friendly fencing projects; estimated unfunded cost = to-be-determined.
  - Responses to requests for input from regulatory agencies (e.g., BLM, USFS, IDL, ITD, FERC, BOR, IDWR, and counties) regarding potential project effects to big game populations and habitat, including for example water, energy, infrastructure, and transportation projects; estimated unfunded cost = to-be-determined.
  - Coordination with and support for ITD upon request to assist with assessing and addressing potential wildlife-vehicle conflicts; estimated unfunded cost = to-be-determined.
- Winter Range and Migration Habitat
  - Cooperative projects for post-wildfire restoration wet meadow expansion on Mud Lake WMA, native vegetation plantings, and wildlife friendly fence modifications; estimated unfunded cost = fully funded.
  - IDFG big game GPS telemetry studies describing winter range use, migration, interstate movements, and interactions with I15; estimated unfunded cost = to-be-determined.
  - NPS camera monitoring of migrating pronghorn and mule deer across the Craters of the Moon National Monument and Preserve; estimated unfunded cost = fully funded.
  - Cooperative projects with private landowners to upgrade fences to wildlife friendly standards; estimated unfunded cost = fully funded.

8. *Actionable near-term efforts to address Risks/Challenges:*

- Technical Assistance
  - Guidance as requested by land/resource management and regulatory agencies.
- Winter Range and Migration Habitat
  - Participation with partners (e.g., private landowners, BLM, USFS, IDL, NRCS, and NGOs) in voluntary cooperative habitat restoration and enhancement projects as opportunities occur and are appropriate, including for example post-wildfire restoration, native vegetation restoration, noxious/invasive weed treatments, and wildlife friendly fencing; estimated unfunded cost = to-be-determined.
  - Participation with partners (e.g., private landowners, BLM, USFS, IDL, NRCS, and NGOs) in voluntary cooperative conservation easements as opportunities occur and are appropriate; estimated unfunded cost = to-be-determined.
  - Develop and implement voluntary cooperative big game habitat management projects with partners in coordination with existing habitat conservation programs (e.g., NRCS Farm Bill programs and USFWS Partners for Fish and Wildlife Program).
- Transportation Mitigation

- IDFG analysis of big game movements and winter range use to assess wildlife-vehicle conflicts with I15 including big game collisions; estimated unfunded cost = to-be-determined.
- Cooperative evaluation with private landowners, counties, and ITD to assess opportunities to reduce wildlife-vehicle conflict and improve I15 motorist safety; estimated unfunded cost = to-be-determined.

9. *Accomplishments since V1.0 to present:*

- Migration Habitat
  - Modified or removed fencing on 14.5 miles of fence to improve big game migration on Mud Lake and Sterling WMAs.
  - Replaced or modified 10 miles of fence along the Arco desert Pronghorn migration route.
  - Replaced 5.75 miles of net wire fencing with wildlife friendly fencing in Crooked Creek – see Photo 4 below of the net wire fence removed and new wildlife friendly fence in the background. Collaborative partners included private landowners, USFWS, Mule Deer Foundation/Cabela’s Bass Pro Shops, and IDFG).



**Photo 4. New wildlife friendly fence replaces woven wire fence in Crooked Creek in 2020.**

- Installed 5.25 miles of fencing to meet wildlife friendly specifications, which will improve grazing management and facilitate big game migration on private land (collaborative partnership with USFWS and private landowner).
- Replaced 4 miles of fencing with wildlife friendly fencing in Big Lost River and Birch Creek area.
- Removed 4 miles of burned and dilapidated fencing and replaced with wildlife friendly fence in the Medicine Lodge drainage (collaborative partnership with USFWS, Farm Service Agency, and private landowner).

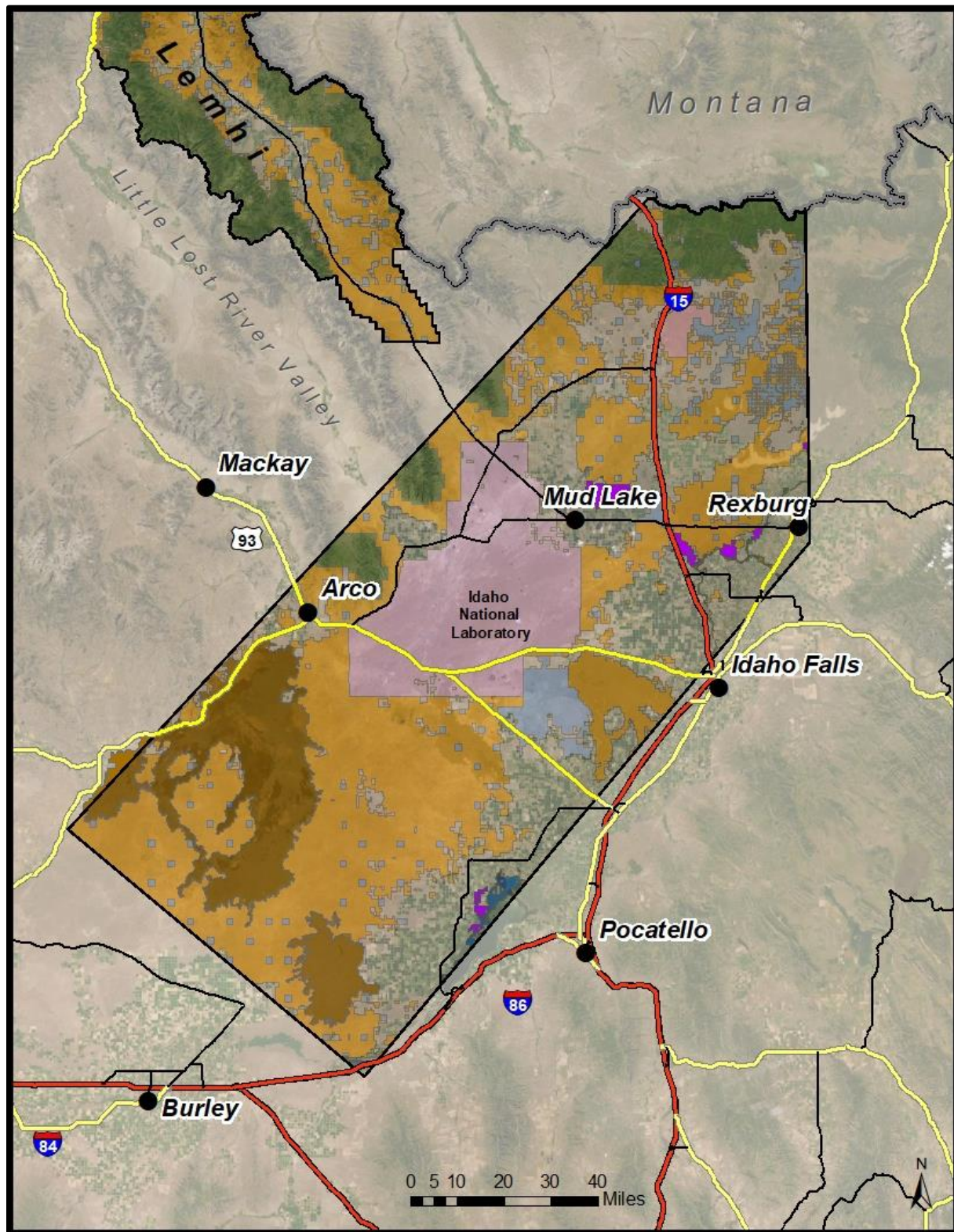
- Removed 8.5 miles of woven wire fence near the Fremont County Line and Replaced with wildlife friendly fence.
- Altogether, 52 miles of fence were removed, modified, or converted to wildlife friendly fence (partners include IDFG, USFWS, Mule Deer Foundation/Cabela's Bass Pro Shops, private landowners, BLM, NRCS, Pheasants Forever, Backcountry Hunters and Anglers, Greater Yellowstone Coalition, Rocky Mountain Elk Foundation, and Idaho National Laboratory - INL).
- Winter Range
  - On the Mud Lake WMA and INL lands, 415 acres sagebrush planted, 600 acres of noxious/invasive weed treatment, and 20 acres wet meadow plantings.
  - Post-fire reseeding on BLM, IDL, and private lands within the Grassy Ridge Fire (9,570 acres improved: 7,320 BLM, 1,470 IDL, and 780 acres private).
  - All projects combined resulted in 10,600 acres improved for big game and sage-grouse during 2019-2022 (partners include IDFG, BLM, IDL, Pheasants Forever, Bayer, and INL).
- Research
  - GPS-collared 34 mule deer and 44 elk during 2019-2022.
  - GPS-collared 47 pronghorn during 2019-2022 with 32 GPS collars intended to identify movement patterns, potential migration barriers, and detailed movements relative to I15.

*10. Other issues for awareness:*

- IDFG and ITD are collaborating with local stakeholders to explore opportunities and approaches to reduce motorist collisions with elk during winter on I15 and improve public safety.
- I15 likely impedes some traditional east-west pronghorn migrations between winter and summer ranges.



**Figure 5. Big Desert-Mountain Valley Complex Priority Area (see above Priority Area Map information and qualifying statements).**



## Lemhi Valley Complex (Figure 6)

### 1. Why area was selected:

- Winter range supports more than 10,000 mule deer and 8,000 elk that migrate from summer ranges in Idaho's Lemhi Mountains and Idaho and Montana's Beaverhead Mountains.
- Provides seasonal range for more than 750 pronghorn.
- Mule deer, elk, and pronghorn movements overlap with the Anaconda to Big Hole Priority Area in Montana.
- Established local public support for improving big game winter range, including willing-landowner conservation easements that preserve working ranches, open spaces, and wildlife habitat.
- Public lands with federal approvals available for noxious/invasive weed treatments.

### 2. Spatial location:

- Lemhi County within the Lemhi River Valley bordering Montana, North Fork of the Salmon River, and a portion of upper Birch Creek.
  - Winter Range – Low elevation areas along the Lemhi and Salmon rivers to the confluence with the North Fork of the Salmon River.
  - Migration Habitat – Mule deer (up to 80 miles) and elk (as far as the Big Hole River) migrate south over the Beaverhead Mountains from summer range in Montana. Mule deer and elk also migrate from summer range in the Lemhi Mountains southwest of the Lemhi River.
  - Mapped migrations in “*Ungulate Migrations of the Western United States, Volume 2*” (Kaufmann et al. 2022):
    - Pattee Creek Mule Deer
    - Reese Creek Mule Deer
    - Central Beaverhead Elk
    - Medicine Lodge Elk
    - North Fork Salmon River Elk
    - Reno Elk
    - Upper Snake River Plain Pronghorn
- Notes.
  - Spatial data for the IDFG's mapped migrations are available upon request: <https://idfg.idaho.gov/species/request-data>.
  - Priority Area extents and map contents are provisional and display IDFG's current understanding of available information; statewide analyses are currently underway to improve winter range, migration, and stopover location mapping; and V4.0 Priority Area maps are subject to change as new information becomes available.

3. *Habitat types:* Beaverhead Mountain ecological section containing sagebrush steppe, forest, agriculture, rural residential, and important riparian habitat (IDFG 2017).

4. *Important stopover areas:* Stopover areas will be identified with ongoing analyses.

5. *Landownership:* Private, IDL, BLM, USFS.

### 6. Risks/Challenges:

- Winter range degradation due to wildfire and noxious/invasive weeds.
- Conifer encroachment in aspen communities.

- Fencing designs that disrupt big game movements.
  - Wildlife-vehicle conflicts within winter range.
7. *Current efforts to address Risks/Challenges:*
- Technical Assistance
    - Guidance to land/resource management agencies (e.g., BLM, USFS, and IDL) and private landowners upon request regarding habitat management, including for example noxious/invasive weed treatments and wildlife friendly fencing projects; estimated unfunded cost = to-be-determined.
    - Responses to requests for input from regulatory agencies (e.g., BLM, USFS, IDL, ITD, FERC, BOR, IDWR, and counties) regarding potential project effects to big game populations and habitat, including for example water, energy, infrastructure, and transportation projects; estimated unfunded cost = to-be-determined.
    - Coordination with and support for ITD upon request to assist with assessing and addressing potential wildlife-vehicle conflicts; estimated unfunded cost = to-be-determined.
  - Winter Range and Migration Habitat
    - Pronghorn, mule deer, and elk GPS telemetry studies describing migration; estimated unfunded cost = fully funded.
    - Cooperative projects with private landowners to upgrade fences to wildlife friendly standards and install markers on new fences to improve visibility to big game, sage-grouse, short-eared owls, and other raptors; estimated unfunded cost = fully funded.
    - Noxious/invasive weed mapping on public and private lands; estimated unfunded cost = fully funded.
    - Noxious/invasive weed treatment and reseeding of winter range in the Salmon River Breaks (USFS); estimated unfunded cost = fully funded.
    - Cheatgrass treatments on IDL, BLM, and private lands in Kirtly Creek and Carmen Creek (2,500 acres); estimated unfunded cost = fully funded.
    - Cheatgrass treatments on IDL, BLM, and private lands in the Upper Lemhi Valley; estimated unfunded cost = fully funded.
  - Transportation Mitigation
    - Cooperative IDFG and ITD monitoring of SH28 roadkill and big game passage for 9 recently replaced Lemhi River bridges and associated funnel fencing; estimated unfunded cost = fully funded.
    - Cooperative Mule Deer Foundation, IDFG, and ITD testing of new one-way gate designs to provide big game escapement from rights-of-ways with funnel fencing and also allow easy sportsmen access; estimated unfunded cost = to-be-determined.
    - Evaluation and community outreach for a potential project to extend the existing SH28 big game funnel fencing an additional 2 miles; estimated unfunded cost = fully funded.
8. *Actionable near-term efforts to address Risks/Challenges:*
- Technical Assistance
    - Guidance as requested by land/resource management and regulatory agencies.
  - Winter Range and Migration Habitat

- Participation with partners (e.g., private landowners, BLM, USFS, IDL, NRCS, and NGOs) in voluntary cooperative habitat restoration and enhancement projects as opportunities occur and are appropriate, including for example wildlife friendly fencing, conifer removal, riparian improvements, and noxious/invasive weed treatments; estimated unfunded cost = to-be-determined.
- Participation with partners (e.g., private landowners, BLM, USFS, IDL, NRCS, and NGOs) in voluntary cooperative conservation easements as opportunities occur and are appropriate; estimated unfunded cost = to-be-determined.
- Develop and implement voluntary cooperative big game habitat management projects with partners in coordination with existing habitat conservation programs (e.g., NRCS Farm Bill programs and USFWS Partners for Fish and Wildlife Program).
- Transportation Mitigation
  - Depending on results of ongoing testing, add one-way gates to the existing SH28 funnel fencing to provide big game escapement in addition to existing jump-outs and allow easy sportsmen access; estimated unfunded cost = to-be-determined.
  - Depending on results of ongoing community outreach, extend the existing SH28 big game funnel fencing an additional 2 miles; estimated unfunded cost = to-be-determined.

9. *Accomplishments since V1.0 to present:*

- Migration Habitat
  - Installed 30 wildlife crossings along 12 miles of woven wire fencing in the upper Lemhi Valley – see Photo 5 below of elk jumping a wildlife crossing installed in woven wire fence. Collaborative partners included private landowners, Mule Deer Foundation, IDFG, and USFWS.
  - Removed 11 miles of fence on private land reducing barriers to interstate herds of mule deer and elk. Collaborative partnership included private landowners, Mule Deer Foundation, private volunteers, and USFWS).
  - Lemhi Regional Land Trust fence modification grant converted 10 miles of fence to wildlife friendly standards on crucial elk and deer winter range.
  - Overall, 33 miles of fence were removed, modified, or converted to wildlife friendly fence in the Lemhi Valley. Collaborative partners included private landowners, ITD, IDFG, USFWS, Mule Deer Foundation, Lemhi Regional Land Trust, National Wildlife Federation, and Salmon Valley Stewardship.





**Photo 5. Wildlife friendly H-braces and gate installed in woven wire fence in the Upper Lemhi in 2021.**

- Winter Range
  - Noxious/invasive weed treatment during 2020/2021 in the Lemhi River Valley through a Cheatgrass Challenge Grant in cooperation with the NRCS, BLM, Lemhi Cooperative Weed Management Area, and private landowners.
  - Pre-emergent herbicide treatments for cheatgrass on IDL, BLM, and private lands in Kriley Gulch, Kirtly Creek, Birch Creek, and Carmen Creek (1,995 acres treated in 2021).
  - Pre-emergent herbicide treatments for cheatgrass and associated noxious/invasive weeds on USFS lands (4,500 acres treated in 2020-2021).
  - All projects combined resulted in 6,495 acres treated from 2019 to August 2022. Collaborative partners included private landowners, IDFG, USFS, Mule Deer Foundation, BLM, NRCS, Idaho Governor's Office of Species Conservation, IDL, Lemhi County, and Salmon Valley Stewardship. Treatments resulted in 80-90% reduction of cheatgrass. With all treatment areas having intact perineal forbs and native shrubs, removing the cheatgrass returned the landscape to a more fire-resilient landscape with increased forage for all sagebrush associated wildlife species, especially benefiting mule deer, elk, pronghorn, bighorn sheep, sage-grouse, and pygmy rabbits.
- Transportation
  - Bridges replaced and height increased for big game and fish passage on 9 bridges along Lemhi River on SH28. Public access sites were added into each bridge replacement design for fishing access. With construction of wildlife

friendly bridges, ITD also added bat boxes under each bridge. In addition to mule deer and elk use, many other big game species benefited from bridge improvements (see Photo 6 below for use by moose within the first few days of construction). Prior to bridge improvements, no big game species were documented crossing under the previous bridges.

- Six miles of funnel fence installed to direct movement under 2 improved bridges along Lemhi River on SH28. Ten public access gates retrofitted with wildlife 1-way gates to improve big game escapement while allowing public access within the 6 miles of funnel fencing along the SH28 right-of-way.
- Expanded Research
  - GPS-collared 32 mule deer and 99 elk during 2019-2022.
  - GPS-collared 34 pronghorn that travel between or within the Lemhi and Big Desert Priority Areas in 2019 and 2020.

10. *Other issues for awareness:*

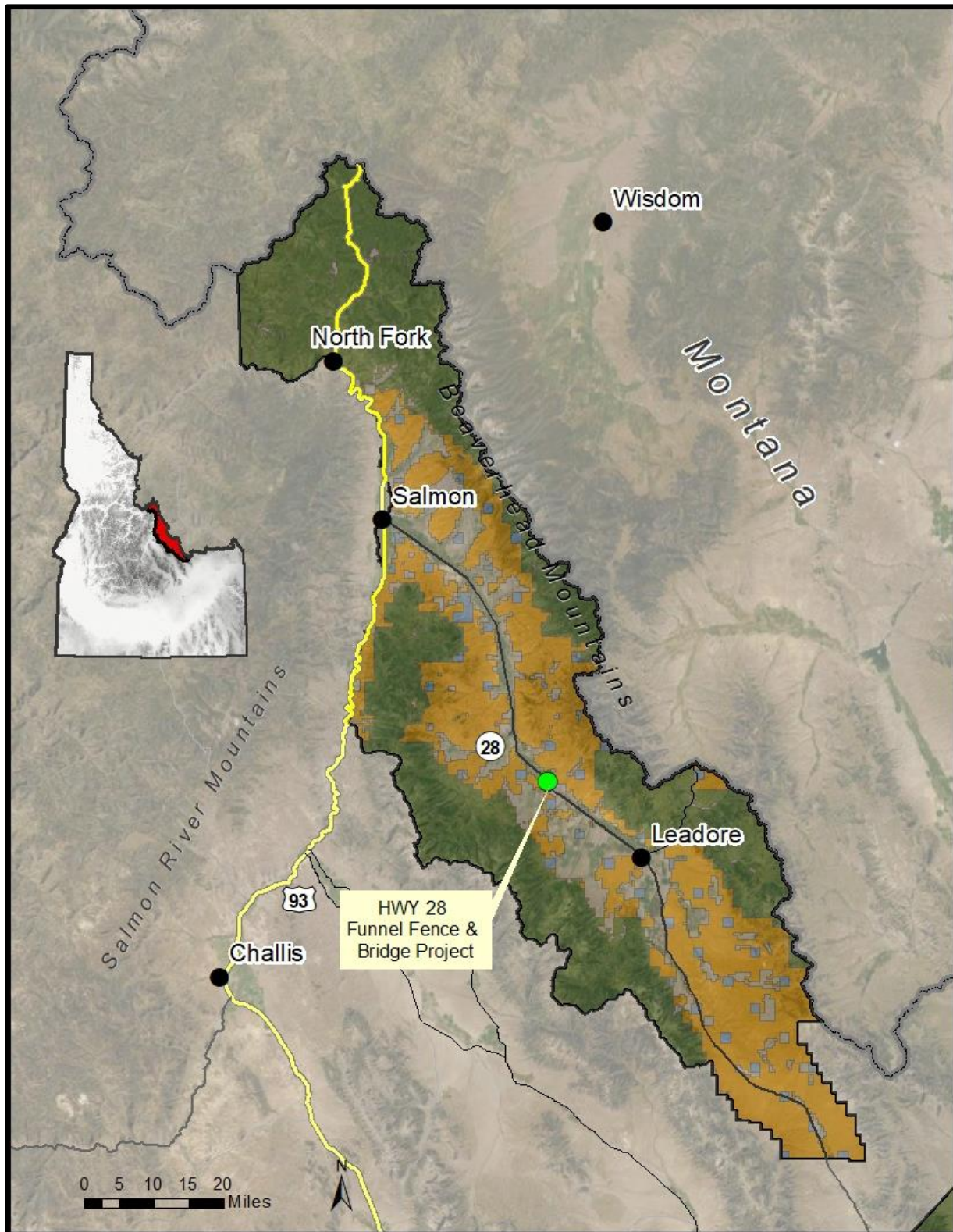
- Improving winter range condition in this Priority Area might help decrease big game use of agricultural lands.



**Photo 6. Moose crossing under SH 28 after bridge improvement projects and funnel fencing were completed on the Lemhi in 2020.**



Figure 6. Lemhi Valley Complex Priority Area (see above Priority Area Map information and qualifying statements).



## **LITERATURE CITED**

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Submitted by: IDAHO DEPARTMENT OF FISH AND GAME

Approved by:

A handwritten signature in black ink, appearing to read 'Ed Schriever', written over a horizontal line.

Ed Schriever  
Director

A handwritten signature in blue ink, appearing to read 'Frank Edelman', written over a horizontal line.

Frank Edelman  
Chief, Technical Services Bureau



**APPENDIX: DEPARTMENT OF INTERIOR 7 APRIL 2022 LETTER TO THE IDAHO DEPARTMENT OF FISH AND GAME SOLICITING A FOURTH VERSION OF IDAHO'S 2018 SO3362 ACTION PLAN.**



In reply refer to:  
FWS/ASCI/076697

**United States Department of the Interior**

FISH AND WILDLIFE SERVICE  
Washington D.C. 20240



April 7, 2022

Ed Schriever, Director  
Idaho Department of Fish and Game  
PO Box 25  
600 S. Walnut  
Boise, Idaho 83707

Dear Ed:

I sent a letter in late January 2022 regarding the status and future of the Department of the Interior Secretarial Order 3362 (SO3362), "Improving Habitat Quality in Western Big Game Winter Range and Migration Corridors." In that letter I indicated a subsequent letter would be forthcoming to initiate the 2022 update process of your respective SO3362 Action Plan (Action Plan). This letter fulfills that commitment and offers your agency the opportunity to update its current Action Plan. As in the past, it is your decision whether updating your state's plan is necessary.

The concept of Action Plans was developed to facilitate strategic and focused habitat conservation at large landscape scales. While the Action Plans are important in the grant funding process, their primary purpose is to serve as a mechanism for partner convergence and subsequent development of locally-led habitat conservation efforts. The time, attention, and detail your agency puts into each iteration of your plan is recognized and much appreciated.

As your agency contemplates an update to your Action Plan, please consider incorporating new data/mapping analysis for your SO3362 priority seasonal habitat and/or migration corridors, information on completed habitat conservation projects, and new habitat conservation project opportunities within the priority areas. In addition, please consider including specific mention of other species that are benefiting from the big game habitat conservation efforts. It is important to better understand and communicate the wide array of other wildlife species and environmental services benefiting from the conservation activities occurring through SO3362.

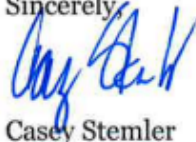
Colleagues have raised the point that some pronghorn populations do not exhibit migration behavior in the same way as mule deer and elk. Where some large ungulates travel relatively predictable routes between seasonal ranges, pronghorn sometimes move less predictably apparently driven by available forage resources. This presents unique challenges when addressing conservation of seasonal movements. Rather than focus on specific routes or corridors, it may be prudent to provide a broad range of

landscape options for a SO3362 priority pronghorn population if it doesn't exhibit traditional migration behavior.

Please send me (casey\_stemler@fws.gov) and SO3362 Liaison Tom Olliff (Tom\_Olliff@nps.gov), your final 2022 Action Plan submission by **September 5, 2022**. Feel free to contact me with questions or concerns via email (casey\_stemler@fws.gov) or by cell phone at 202-320-9904. I additionally encourage your staff to take advantage of the assistance opportunities offered by your SO3362 Liaison, so please feel free to have your staff reach out to Tom at 406-581-2763.

The implementation of SO3362 is largely a state-driven process to effectively use limited funding to advance knowledge and conservation impact. By continuing to approach implementation in a cooperative, collaborative, and adaptive manner, we can deliver on these fundamental principles and accomplish meaningful conservation actions that benefit deer, elk, and pronghorn as well as countless other wildlife species. Thank you for your trust and partnership as we work together to conserve invaluable habitat for our western wildlife.

Sincerely,



Casey Stemler  
Coordinator, SO3362

cc: Tom Olliff