



Idaho Action Plan (V5.0)

Improving Big Game Winter Range and Migration Routes



Prepared by **IDAHO DEPARTMENT OF FISH AND GAME**

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Executive Summary

The Idaho Department of Fish and Game (IDFG) coordinates with a diversity of partners, including private landowners, state and federal agencies, and non-governmental organizations, to implement voluntary management to conserve big game habitats across Idaho, including seasonal ranges and migration routes. For decades, the Department has invested significant research and monitoring resources to obtain data necessary to inform big game management and assist these partners with conserving big game habitat.

Since 2018, IDFG's understanding, and management of big game migration routes and seasonal habitats have been augmented through the Department of Interior's (DOI) Secretarial Order No. 3362 (SO3362): Improving Habitat Quality in Western Big Game Winter Range and Migration Corridors. SO3362 directs DOI agencies to assist western tribes, private landowners, state fish and wildlife agencies, and state highway departments with managing and conserving priority big game winter ranges and migration habitat, focusing on mule deer, pronghorn, and elk. Conserving healthy and connected landscapes that support migratory big game additionally conserves large numbers of associated fish and wildlife species. SO3362 assistance includes grant funding opportunities for voluntary habitat conservation and data collection and analysis based on state-specified conservation priorities as documented in state-prepared action plans.

To access SO3362 funding, IDFG prepared Version 1 (2018) of the Idaho Action Plan for implementing SO3362 (Action Plan). Idaho's Action Plan established a framework for conserving priority big game winter ranges and migration routes within 5 Priority Areas. The Action Plan was updated in 2019 (Version 2), 2020 (Version 3), 2022 (Version 4) and now 2023 (Version 5) with support from the Idaho Transportation Department (ITD). Action Plan revisions occur as needed in coordination

with the DOI (Appendix A) based on annual reviews to address new priorities, provide new information, and document completed projects.

Each Action Plan version applies the best available information to (1) identify current and future priority needs for managing big game winter range and migration habitat, (2) highlight ongoing and new priority management needs, (3) leverage collaborative resources, and (4) narrow focus to 5 Priority Areas having strategic conservation opportunities. IDFG delineates Priority Areas based on the presence of key big game populations, locations of corresponding winter ranges and migration routes, and potential risks and challenges to these populations as informed by Idaho Fish and Game Commission approved species management plans (IDFG 2014, IDFG 2019, IDFG 2023).

When delineating priority areas, IDFG also places high importance on the availability and feasibility of near-term opportunities for voluntary actionable management efforts with high probabilities of broad-based local community support and success. During Action Plan updates, IDFG may therefore assign new priority areas (while deemphasizing existing priority areas) to emphasize near-term opportunities for management efforts with high likelihoods of success.

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, V5.0 herein updates Idaho's current understanding of near-term priority management needs and opportunities and updates ongoing conservation efforts across priority areas.

In addition to SO3362-related grant funds, new sources of grant funding opportunities have recently become available (e.g., Bipartisan Infrastructure Law and Farm Bill) to support Action Plan implementation. Conservation partners are encouraged to coordinate with IDFG when developing Action Plan related project proposals and grant funding requests, noting that SO3362-funded grant proposals need preapproval by the Director of IDFG.

Action Plan V5.0 incorporates the following key updates to focus cross-jurisdictional management of Idaho's priority big game winter ranges and migration routes:

- The list of statewide priority management efforts has been updated based on currently understood needs, opportunities, and progress to address Idaho's highest priority big game winter range and migration Risks/Challenges.
- Current Risks/Challenges have been reviewed for each Priority Area.
- Ongoing efforts to address Risks/Challenges have been updated for each Priority Area

based on management efforts initiated during earlier Action Plan versions.

- Near-term actionable efforts to address Risks/Challenges have been updated for each Priority Area based on newly and previously identified management needs requiring additional effort and funding within the Action Plan's scope.
- Accomplishments for each Priority Area have been updated to describe to-date progress on past and ongoing management and study efforts since Action Plan V1.0.
- Migration route information has been updated and incorporated by reference from Ungulate Migrations of the Western United States (Volumes 1-3) (Kaufmann et al. 2020, Kaufmann et al. 2022a, Kaufmann et al. 2022b).



Elk herd on the move CCBY IDAHO FISH AND GAME



Introduction

Background

Each year, many big game populations migrate between winter and summer seasonal ranges. Land uses (urbanization and agriculture), infrastructure (e.g., roads, fences, and energy development), 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 routes often traverse topographic, development, and infrastructure bottlenecks.

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

- Mule deer and elk migrate from Yellowstone National Park to the Sand Creek Desert winter range.
- 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.
- Pronghorn migrate over 100 miles between the Pioneer and Beaverhead mountains.

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 facilitating a better understanding of the full scope of Idaho's big game seasonal ranges and migrations.

The purpose of Idaho's SO3362 Action Plan is therefore to prioritize and facilitate ongoing and future cross-jurisdictional and landscape-scale conservation of big game winter ranges and migration habitat. Additionally, conserving and managing intact, connected, and healthy big game winter range and migration habitat at landscape scales will benefit other fish and wildlife species including many Idaho "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 applies to the following states: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. SO3362 assistance also facilitates grant funding opportunities through the National Fish and Wildlife Foundation (NFWF) and US Fish and Wildlife Service (USFWS) Partners for Fish and Wildlife Program for voluntary and collaborative habitat conservation and data collection based on state-specified conservation priorities (<https://www.nfwf.org/media-center/press-releases/nfwf-announces-nearly-4-million-grants-western-big-game-seasonal-habitat-and-migration-corridors>).

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



Pronghorn CCBY IDAHO FISH AND GAME

available science to inform land management and habitat conservation actions. 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 improving and conserving (i.e., planning, management, and research) big game winter range and migration habitat on federal, state, and private lands including collaborating with the USDA (e.g., USFS, Natural Resource Conservation Service (NRCS), and Farm Service Agency (FSA)). The DOI is to support state wildlife agency preparation of cross-jurisdictional action plans that establish state-specified goals, priority habitat management efforts, and estimated budget needs for conserving and restoring winter range and migration habitat in 5 Priority Areas. The following are examples of SO3362 priority habitat management efforts applicable for action plans:

- Treatment of exotic/invasive vegetation.
- Post-wildfire rehabilitation of winter ranges.

- Removal of encroaching trees within sagebrush ecosystems.
- Voluntary cooperative efforts with private landowners, federal land managers, and state highway departments to address fences that impede big game movements and migration.
- Limiting disturbance and displacement of big game on winter range.
- Avoidance, minimization, and mitigation of development and infrastructure projects (e.g., urbanization and utility-scale energy facilities) that fragment or otherwise impact winter range or migration habitat.

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 development projects. Conserving pronghorn, mule deer, and elk winter ranges and migration habitat across jurisdictions will help promote the overall ecological integrity of landscapes in the West for many additional fish and wildlife species.

Federal Lands

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 multiple-use 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's SO3362 is supporting voluntary collaborative efforts by IDFG, private landowners, and many other stakeholders 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 public lands that support Idaho's diverse native wildlife, much of which also provides excellent big game habitat and associated hunting opportunities. The DOI's BLM, 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 7 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 & Preserve and part of Yellowstone National Park, both of which support important big game seasonal and migratory habitat. 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.

Private Lands and Working Lands for Wildlife

Consistent with SO3362's cross-jurisdictional habitat goals, USDA expanded its Working Lands for Wildlife Initiative (WLFW) in June 2023 to prioritize and fund voluntary conservation efforts for migratory big game on private working lands (<https://www.wlfw.org/usda-announces-historic-investment-in-wildlife-conservation-expands-partnership-to-include-additional-programs/>). The WLFW goal is to incentivize the conservation of American's working lands to benefit people, wildlife, and rural communities. The 2023 WLFW expansion includes the Western Migratory Big Game Framework, which is a strategy to maintain large and connected working lands across the West including Idaho.

Traditional Farm Bill and Inflation Reduction Act funding for the Western Migratory Big Game Framework is to be administered through existing NRCS and FSA agricultural programs: Environmental Quality Improvement Program, Agricultural Conservation Easement Program, and Conservation Reserve Program. IDFG and NRCS have begun collaborating to incorporate migratory big game considerations into these conservation programs, with projects in Action Plan Priority Areas and migration routes receiving increased opportunities for funding.

Transportation and Bipartisan Infrastructure Law

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. As a result, IDFG and ITD routinely partner to address potential wildlife-vehicle conflicts, including the following examples:

- IDFG provides technical assistance to ITD 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 Idaho Fish and Wildlife Information System.
- IDFG maintains the Idaho Conservation Planner containing wildlife species distribution information to assist ITD decision-making about proposed highway projects.
- IDFG shares migration maps with ITD to identify big game-highway interactions.
- IDFG and ITD collaborate to monitor the effectiveness of wildlife crossing structures.

IDFG and ITD also partner with the Governor's Office of Species Conservation (OSC) and Other Idaho state agencies (e.g., Idaho Department of Lands (IDL)) to develop transportation-related projects consistent with Action Plan priorities that would directly or indirectly benefit migratory big game and reduce risks of wildlife-vehicle conflicts. IDFG and ITD also engage with the public, private landowners, businesses, county commissions, federal agencies, and nongovernmental organization (NGO) stakeholders to develop broad-based support for implementing transportation-related big game projects.

In addition to SO3362 funding, the 2021 Bipartisan Infrastructure Law (BIL) substantially increased funding opportunities for transportation-related migratory big game projects. BIL committed \$973B over 5 years to invest in the nation's infrastructure and communities. Infrastructure investments include multiple transportation programs. The following are examples of grant programs with

BIL funding that provide potential opportunities to fund transportation projects that would benefit motorist safety, infrastructure resilience, and migratory big game (<https://www.transportation.gov/bipartisan-infrastructure-law/bipartisan-infrastructure-law-grant-programs>):

- Wildlife Crossing Pilot Program
- Highway Safety Improvement Program
- Bridge Investment Program
- National Culvert Removal, Replacement and Restoration Program
- National Fish Passage Program
- Surface Transportation Block Grant Program
- Federal Lands Access Program
- Federal Lands Transportation Program
- Transportation Alternatives Program
- America the Beautiful Challenge

ITD, OSC, and IDFG, with IDL support, have to date prepared 7 grant applications seeking BIL funding for transportation-related projects, including a Wildlife Crossing Pilot Program grant application for the US30 Big Game Crossing Project at Rocky Point. IDFG and ITD will also continue to engage with the public, private landowners, governmental, and NGO partners as appropriate during development and implementation of transportation-related big game grant projects.

Statewide Priority Management Efforts

Consistent with SO3362, Action Plan updates identify priority near-term (i.e., 1-3 years) actionable management efforts to address winter range and migration habitat needs within each Priority Area. Action Plan updates also identify statewide near-term actionable priorities, which may be selected from actionable management efforts identified for Priority Areas.

The following list comprises Action Plan V5.0's statewide priority management efforts:

1. Rocky Point Priority Area – Support ITD design, funding, and construction of big game crossing structures and funnel fencing on SH30 at Rocky Point; estimated unfunded cost = \$18,000,000.
2. Smokey-Boise Complex Priority Area – Support ITD with designing 3 bridges to replace buried culverts under US20 within Blaine, Camas, and Elmore counties; estimated unfunded cost = \$1,200,000.
3. Statewide – Evaluate opportunities, including public input on the draft Action Plan V5.0, to update Priority Areas in Action Plan V6.0 as appropriate. The evaluation and potential Priority Area updates will be intended to better align with new data, local knowledge, current understandings of Risks/Challenges, and near-term actionable opportunities to implement strategic management efforts with relatively high probabilities for broad-based public

support and success; estimated unfunded cost = undetermined.

4. 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 = undetermined.
5. Panhandle Complex Priority Area – Support ITD and Osburn, Idaho community to potentially repurpose an obsolete I90 vehicle overpass to a big game crossing structure including funnel fencing; estimated unfunded cost = undetermined.

Increasing IDFG's personnel and operating capacity to implement the Action Plan is also an ongoing statewide priority. In 2020, the Mule Deer Foundation (MDF) received a NFWF grant to fund an Idaho Action Plan coordinator position for 3 years. The MDF position supported IDFG, partners, and stakeholders with technical assistance for implementing voluntary winter range and migration habitat management projects across Priority Areas. Considering the position's success, NFWF awarded MDF with a second phase of coordinator funding (2023-2026). In addition, ITD is contributing funds for an IDFG-ITD liaison that will provide broad-based transportation-related technical assistance consistent with the Action Plan.



HWY 21 Wildlife Underpass CCBY IDAHO FISH AND GAME



Big Game Winter Range and Migration Priority Areas

Priority Areas – Action Plan V5.0 maintains the same 5 Priority Areas from V4.0. The following V5.0 subsections update the status of the 5 Priority Areas (Figure 1), including up-to-date accomplishments and new information for ongoing 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 Priority Area subsection contains updated summaries as appropriate of the following action plan topics requested by DOI, including accomplishments and maps:

1. Why area was selected
2. Spatial location (including map)
3. Habitat types
4. Important stopover areas
5. Landownership
6. Risks/Challenges
7. Ongoing efforts to address Risks/Challenges
8. Near-term actionable efforts to address Risks/Challenges
9. Accomplishments since Action Plan V1.0
10. Other issues for awareness (if applicable)

Cost Estimates – Estimated unfunded remaining costs for “Ongoing efforts addressing Risks/Challenges” and estimated unfunded costs for “Near-term actionable efforts to address Risks/Challenges” are provided if available. Fully funded efforts are also noted. Otherwise, cost estimates are currently undetermined or unavailable if not

provided and corresponding management efforts are presently unfunded.

Priority Area Maps – Figure 1 provides a statewide overview of Priority Area locations. Figures 2 through 6 provide individual Action Plan V5.0 Priority Area maps. The legend of land ownership displayed on each Priority Area map is based on standard publication colors for federal surface management agencies.

Big game migration route maps across the West are available in *Ungulate Migrations of the Western United States, Volume 1* (Kaufmann et al. 2020), *Volume 2* (Kaufmann et al. 2022a), and *Volume 3* (Kaufmann et al. 2022b), which include IDFG’s published mule deer, elk, and pronghorn maps. Currently, 51 Idaho big game migrations (22 mule deer, 23 elk, and 6 pronghorn) have been mapped, of which 30 (12 mule deer, 13 elk, and 5 pronghorn), or 59%, of mapped migrations occur at least partially in an Action Plan V5.0 Priority Area.

IDFG is continuing to improve and update maps of big game winter ranges and migration routes to inform Priority Area extents and potential future boundary modifications. Hence, Priority Area maps are subject to change as new information becomes available. Priority Area maps herein are therefore considered provisional and intended for Action Plan V5.0 planning purposes.

Figure 1. Overview of Idaho's big game winter range and migration habitat Priority Areas.

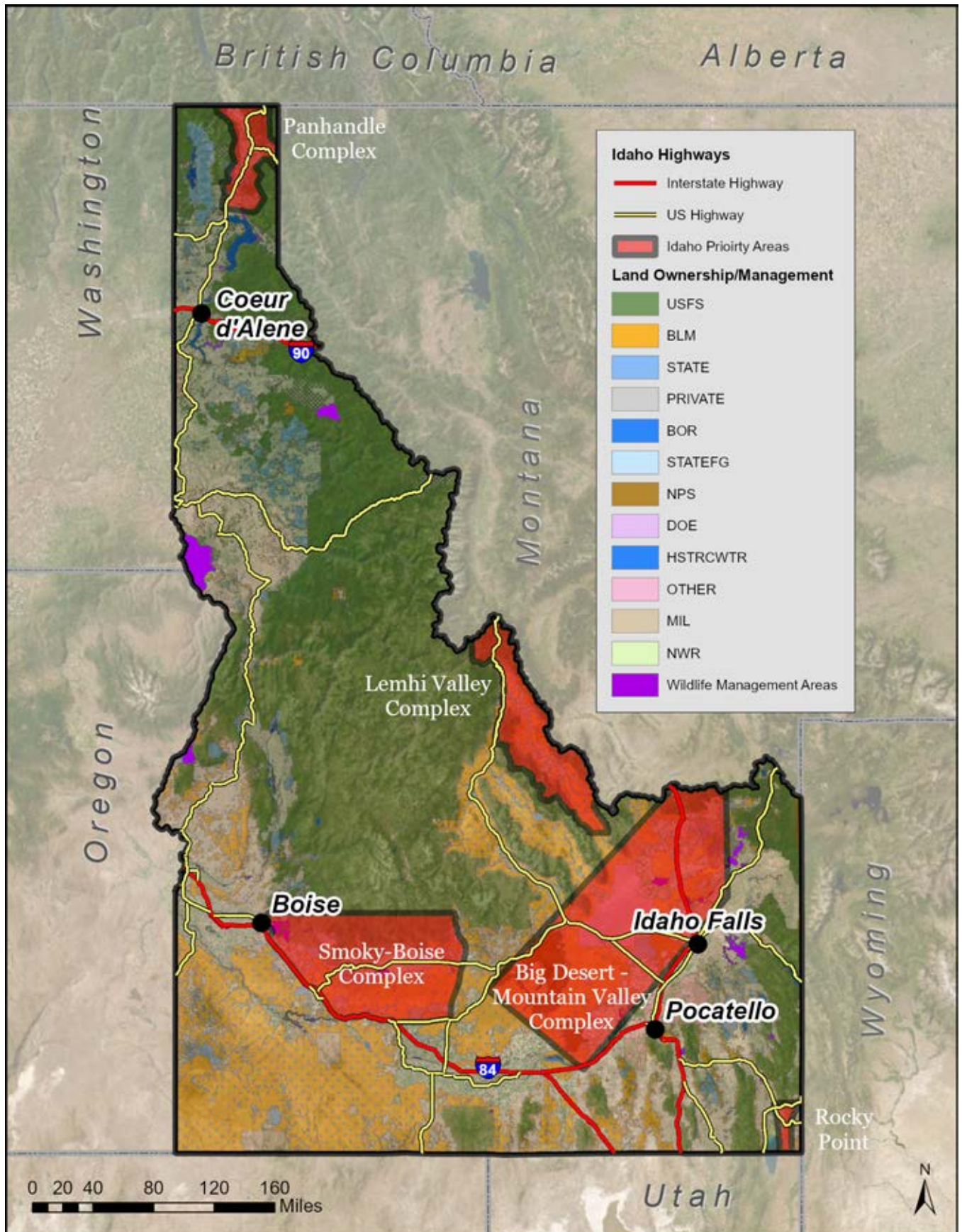
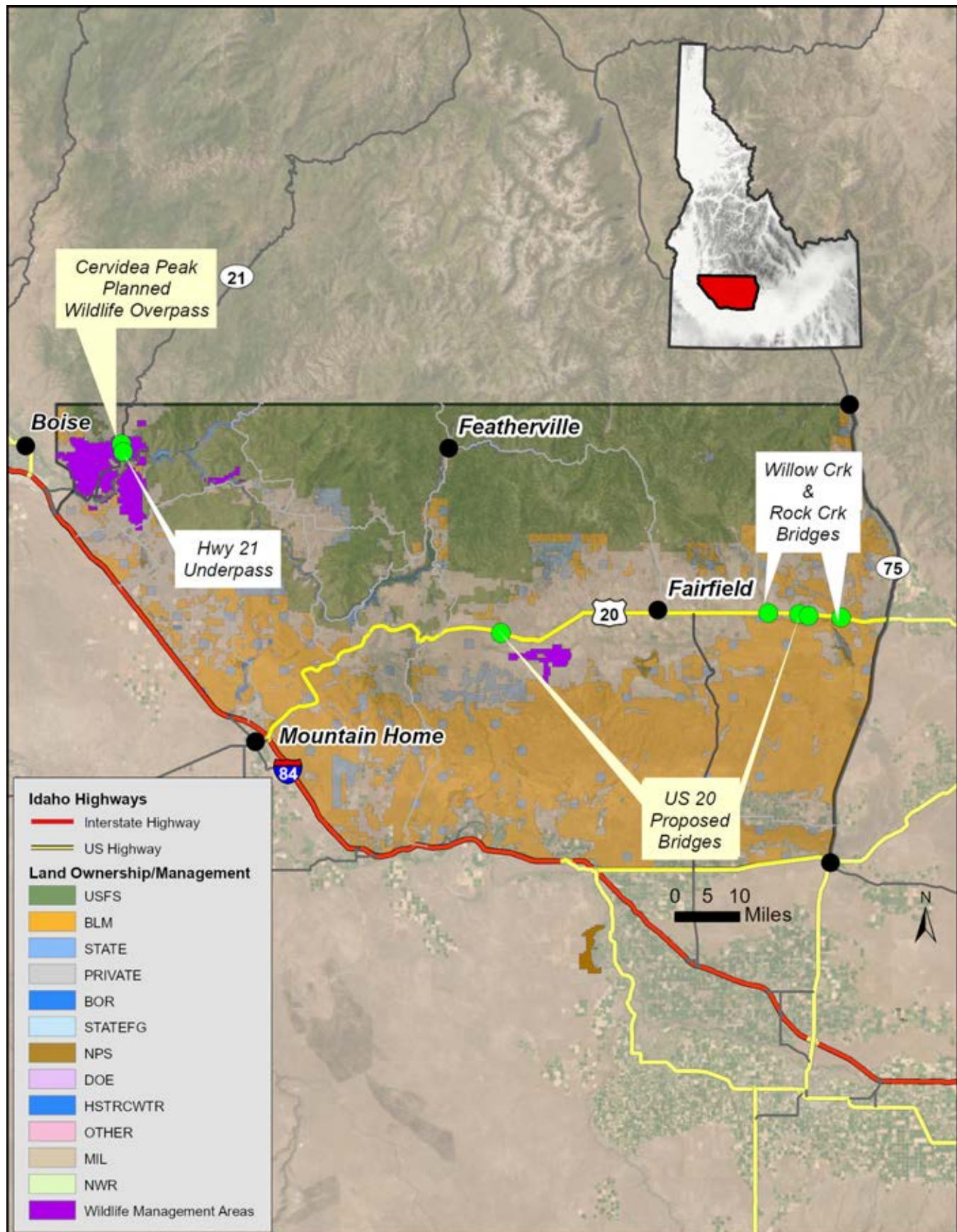


Figure 2. Smoky-Boise Complex Priority Area.



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
 - o 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.
 - o 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, Rock 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):
 - o Bennett-Teapot Dome Mule Deer
 - o Blacks Creek-Danskin Mule Deer
 - o Boise River Mule Deer
 - o Pioneer Reservoir Mule Deer
 - o Mount Borah Mule Deer
- Mapped migrations in *Ungulate Migrations of the Western United States, Volume 2* (Kaufmann et al. 2022a),
 - o Bennett-Teapot Dome Elk

- o Blacks Creek-Danskin Elk
- o Boise River Elk
- o McKinney Butte Elk
- o Pioneer Reservoir Elk
- o Twin Springs Elk
- o Gooding Pronghorn
- o Mountain Home Pronghorn
- o Owinza Pronghorn

• Notes

- o Priority Area maps are provisional and subject to change as new information becomes available.
- o IDFG analyses are ongoing to improve winter range and migration route mapping.
- o Spatial data for IDFG's mapped migrations are available upon request: <https://idfg.idaho.gov/species/request-data>.

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. Ongoing efforts to address Risks/Challenges:

- Technical Assistance
 - o 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 = fully funded.
 - o Responses to requests for input from regulatory agencies (e.g., BLM, USFS, IDL, ITD, Federal Energy Regulatory Commission (FERC), US Bureau of Reclamation (BOR), Idaho Department of Water Resources (IDWR), and counties) regarding land use planning, travel planning, and potential project effects to big game populations and habitat, including for example subdivision, water, energy, mineral, infrastructure, and transportation projects; estimated unfunded cost = fully funded.
 - o Coordination with and support for ITD to assist with assessing and addressing potential wildlife-vehicle conflicts; estimated unfunded cost = fully funded.
- Winter Range and Migration Habitat
 - o Post-wildfire restoration and noxious/invasive weed treatment projects on IDFG's Boise River WMA, USFS-, BLM-, and IDL-managed lands; estimated unfunded cost = undetermined.
 - o 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 = undetermined.
 - o 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.

- o Pronghorn and mule deer GPS telemetry study estimating potential impacts from renewable energy projects; estimated unfunded cost = \$150,000/year.

- Transportation

- o Completion of the collaborative project (including a diversity of private, local, state, and federal contributors) to construct the SH21 Cervidae Peak big game overpass and associated funnel fence; estimated unfunded cost = fully funded.
- o IDFG routine monitoring of the SH21 big game underpass and overpass, and maintenance of associated funnel fence; estimated unfunded cost = \$20,000/year.
- o Completion of the collaborative pronghorn and mule deer GPS telemetry study (including BLM, Blaine County, and IDFG) describing migration and interactions with US20, SH75, and SH24; estimated unfunded cost = fully funded.
- o IDFG routine monitoring of big game movements under the US20 single-span bridges that replaced culverts at Rock and Willow creeks; estimated unfunded cost = fully funded.
- o Placement as needed of Dynamic Electronic Messaging Boards during spring and fall movement periods warning motorists to be observant of big game on highways; estimated unfunded cost = fully funded.

8. Near-term actionable efforts to address Risks/Challenges:

- Technical Assistance
 - o Guidance as requested by land/resource management and regulatory agencies; estimated unfunded cost = fully funded.



Mule Deer CCBY IDAHO FISH AND GAME

- o Support for big game studies and potential mitigation measures for energy, mineral, infrastructure, and other development projects; estimated unfunded cost = undetermined.
 - Winter Range and Migration Habitat
 - o 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 = undetermined.
 - o 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 = undetermined.
 - o Development, funding, and implementation as appropriate of voluntary cooperative big game habitat management projects with partners in coordination with existing habitat conservation programs (e.g., NRCS and FSA Farm Bill programs and USFWS Partners for Fish and Wildlife Program).
 - Transportation
 - o ITD-IDFG cooperative project to develop designs to replace existing US20 culverts with bridges at Camp, Poison, and Wildhorse creeks to improve motorist safety and reduce wildlife-vehicle conflict; estimated unfunded cost = \$1,200,000.
9. Accomplishments since Action Plan V1.0:
- Winter Range
 - o 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).
 - o Completion of 1,300 acres of herbicide seed-bed treatment on private lands damaged by wildfire in the Mayfield area in August 2019; subsequently USFWS has completed drill/aerial seeding treatments.

- o Sagebrush and bitterbrush revegetation after the 2018 Dog Creek Fire – see Photos 1 and 2 on page 13 showing sagebrush seedlings and restoration crew hand-planting sagebrush at Dog Creek (174,000 sagebrush and bitterbrush seedlings planted on 3,500 acres in 2019 and 2020).
- o 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).
- o Sagebrush and bitterbrush revegetation after the Pony-Elk Complex wildfires in 2013. Contract restoration crews and volunteers planted 81,100 sagebrush and bitterbrush seedlings in 2022 and 2023.
- o Treatment of noxious/invasive weeds and annual invasive grasses on IDFG’s WMAs (2,100 acres improved from 2018-2023).
- o All projects combined resulted in 8,110 acres improved between years 2018-2023 (partners include USFWS, IDFG, MDF, BLM, IDL, Brush 4 Bucks, and private landowners).
- Migration Habitat
 - o Converted 36 miles of fence to wildlife-friendly standards on state and private lands in the Magic Valley Region during 2019-2023 (partners included IDFG, USFWS, private landowners, and Idaho Fish and Wildlife Foundation).
- Transportation
 - o ITD and IDFG completed cooperative pilot study for US20 testing a smartphone application to enhance roadkill reporting.
 - o Maintained 2 miles of funnel fence and jump-outs associated with the SH21 underpass during 2020.
 - o ITD replaced culverts with bridges on US20 at Rock and Willow creeks in 2019, which also restored previously blocked fish passage.
- o Federal Highway Administration and ITD awarded the construction contract in 2022 for the SH21 overpass and funnel fencing at Cervidae Peak in the Boise River WMA, and initiated construction in spring 2023 with completion scheduled for fall 2023.
- Research
 - o GPS radiotelemetry collaring and monitoring of 70 pronghorn in 2019-2023; 50 pronghorn were part of a cooperative project with IDFG, BLM, and Blaine County's Land, Water, and Wildlife Conservation Grant to study pronghorn and mule deer migration and interactions with US20, SH75, and SH24.
 - o GPS radiotelemetry collaring and monitoring of 154 elk and 351 mule deer throughout the Priority Area in 2019-2023.

10. Other issues for awareness:

- This Priority Area encompasses one of the fastest growing human population centers in Idaho.
- The expanding population and associated increasing outdoor recreational activities can disturb and displace migrating and wintering big game and degrade winter range with increased wildfire, noxious/invasive weeds, and soil erosion.

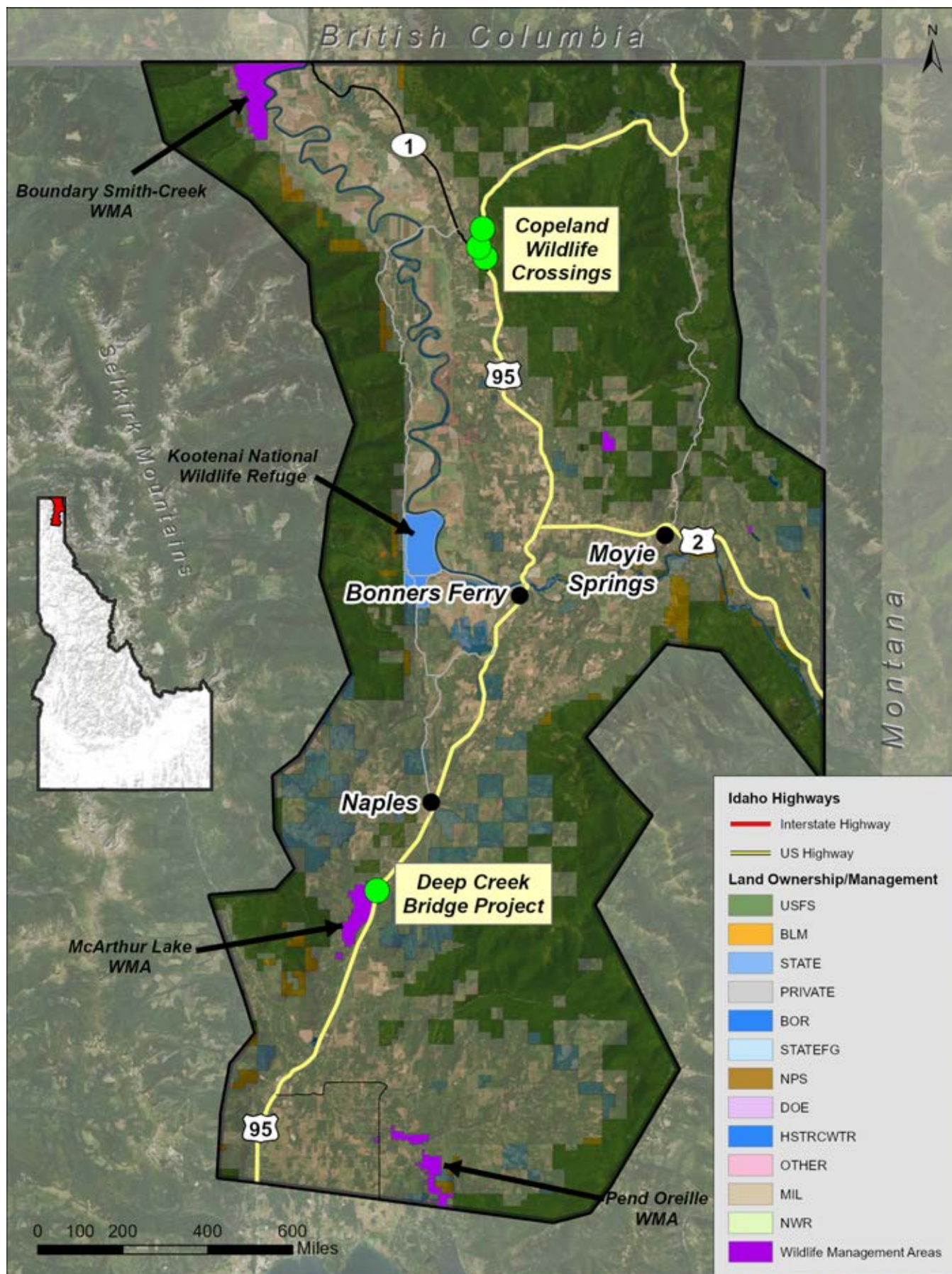


Photo 1. Sagebrush seedlings used to restore winter range after the Dog Creek Fire in 2018.



Photo 2. MDF crew hand-planting sagebrush seedlings to restore winter range after the Dog Creek Fire in 2018.

Figure 3. Panhandle Complex Priority Area.



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 prior to S03362 to secure Forest Legacy Program conservation easements on more than 8,000 acres of private timberlands that provide winter range adjacent to US95 and 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 unmapped.
- Notes
 - A GPS telemetry study is underway to describe elk movements.
 - Priority Area maps are provisional and subject to change as new information becomes available.
 - Spatial data for IDFG's mapped migrations are available upon request: <https://idfg.idaho.gov/species/request-data>.

3. Habitat types: Okanagan Highlands and Flathead Valley ecological sections (IDFG 2017) containing subalpine 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, USFWS, BLM, USFS, and State-of-Idaho.

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. 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 = fully funded.
 - Responses to requests for input from regulatory agencies (e.g., BLM, USFS, IDL,

ITD, FERC, BOR, IDWR, and counties) regarding land use planning, travel planning, and potential project effects to big game populations and habitat, including for example subdivision, water, energy, mineral, infrastructure, and transportation projects; estimated unfunded cost = fully funded.

- o Coordination with and support for ITD to assist with assessing and addressing potential wildlife-vehicle conflicts; estimated unfunded cost = fully funded.

- Winter Range and Migration Habitat

- o IDFG vegetation enhancements (i.e., forest management, plantings, food plots) on McArthur Lake WMA; estimated unfunded cost = fully funded.
- o Voluntary cooperative habitat restoration and enhancement projects including partnerships among private, USFS, State-of-Idaho, TNC, Tribal, and USFWS stakeholders; estimated unfunded cost = undetermined.
- o 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 = undetermined.

- Transportation

- o IDFG and ITD cooperative monitoring of US95 wildlife underpasses near Copeland, Idaho; estimated unfunded cost = fully funded.
- o IDFG and ITD cooperative roadkill data collection to assess wildlife-vehicle collision frequency and locations on US95, US2, and I90; estimated unfunded cost = fully funded.
- o Placement as needed of Dynamic Electronic Messaging Boards during spring and fall movement periods warning motorists to

be observant of big game on highways; estimated unfunded cost = fully funded.

8. Near-term actionable efforts to address Risks/Challenges:

- Technical Assistance

- o Guidance as requested by land/resource management and regulatory agencies; estimated unfunded cost = fully funded.
- o Support for big game studies and potential mitigation measures for mineral, infrastructure, and other development projects; estimated unfunded cost = undetermined.

- Winter Range and Migration Habitat

- o 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 = undetermined.
- o 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 = undetermined.

- o Development, funding, and implementation as appropriate of voluntary cooperative big game habitat management projects with partners in coordination with existing habitat conservation programs (e.g., NRCS and FSA Farm Bill programs and USFWS Partners for Fish and Wildlife Program).

- Transportation

- o ITD design and construction of a new bridge at McArthur Lake WMA associated with the US95 Realignment Project; estimated unfunded cost = undetermined.

- o IDFG support as requested by ITD for the US95 Realignment Project; estimated unfunded cost = fully funded.
 - o IDFG pre- and post-construction big game monitoring associated with ITD's US95 Realignment Project; estimated unfunded cost = undetermined.
 - o 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 = undetermined.
 - o IDFG and ITD cooperative support (e.g., technical assistance) as requested by the community of Osburn, Idaho for the potential repurposing of an obsolete I90 vehicle overpass to a big game crossing structure including funnel fencing; estimated unfunded cost = undetermined.
- Transportation
 - o IDFG and ITD cooperative assessment of ITD's existing US95 Copeland wildlife crossings and 2023 construction of 1.8 miles of additional funnel fencing.
 - Research
 - o GPS radiotelemetry collaring and monitoring of 28 elk and 3 mule deer during 2019-2022 to describe big game use of winter range and migration habitat across the Priority Area.

9. Accomplishments since Action Plan V1.0:

- Winter Range
 - o IDFG and USFS treatment of forest stands to promote ecological objectives, including habitat enhancement of winter range (7,150 acres improved) in the Priority Area through the Forest Landscape Restoration Program (CFLR).

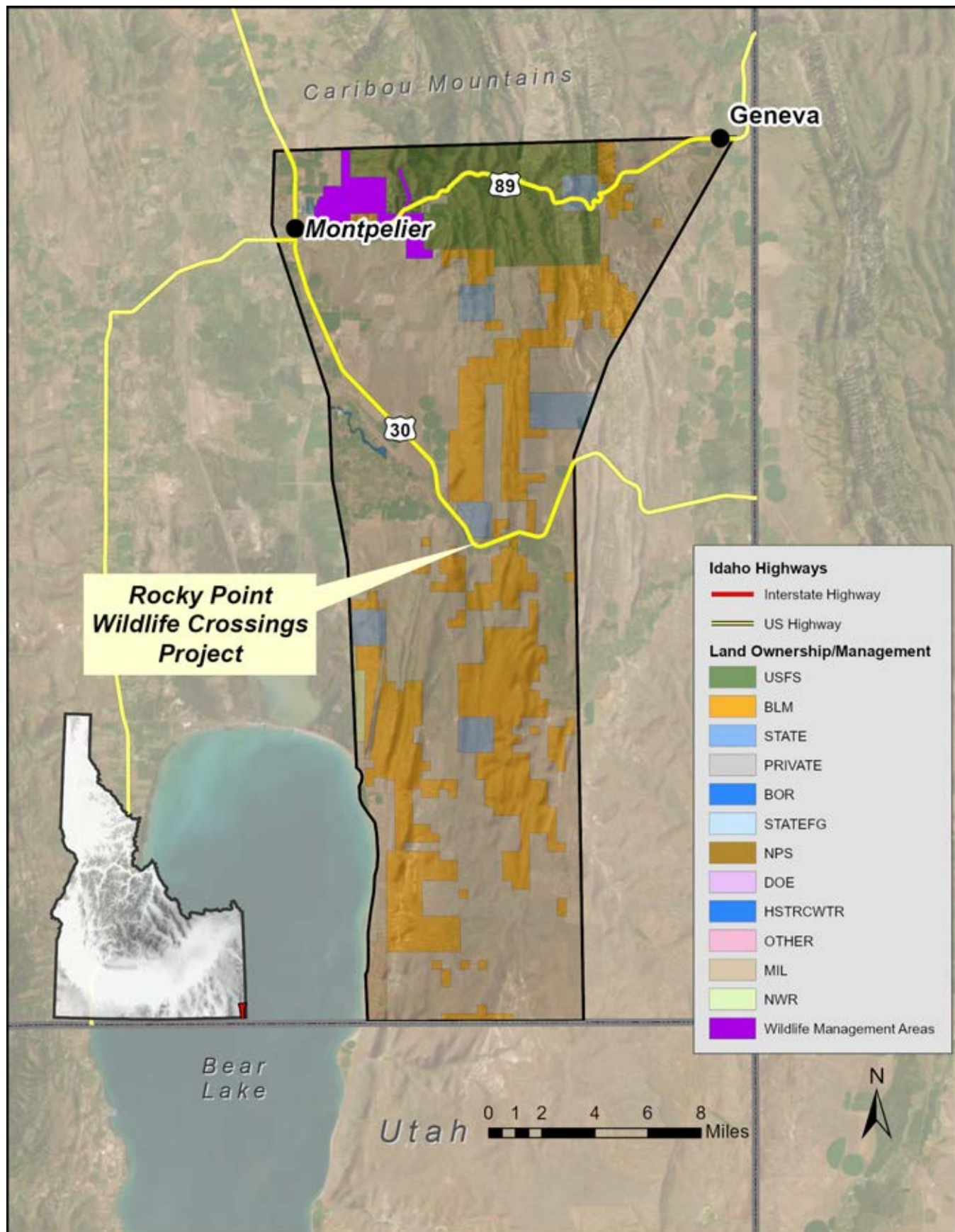
10. Other issues for awareness:

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



Mule Deer CCBY IDAHO FISH AND GAME

Figure 4. Rocky Point Priority Area.



Rocky Point (Figure 4)

1. Why area was selected:

- Contains more than 6,000 mule deer that migrate twice annually across US30 at 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. 2022a):
 - Bear Lake Plateau Mule Deer
- Notes
 - Priority Area maps are provisional and subject to change as new information becomes available.
 - IDFG analyses are ongoing to improve winter range and migration route mapping.
 - Spatial data for IDFG's mapped migrations are available upon request: <https://idfg.idaho.gov/species/request-data>.

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, BLM, USFS, USFWS, and State-of-Idaho.

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. 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 = fully funded.
 - Responses to requests for input from regulatory agencies (e.g., BLM, USFS, IDL, ITD, FERC, BOR, IDWR, and counties) regarding land use planning, travel planning, and potential project effects to big game populations and habitat, including for example subdivision, water, energy, mineral, infrastructure, and transportation projects; estimated unfunded cost = fully funded.
 - Coordination with and support for ITD to assist with assessing and addressing potential wildlife-vehicle conflicts; estimated unfunded cost = fully funded.
- Winter Range and Migration Habitat
 - Cooperative projects with private landowners to upgrade fences to wildlife-friendly standards to improve visibility to big game, sage-grouse, short-eared owls, and other raptors; estimated unfunded cost = fully funded.

- Transportation
 - o 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.
 - o IDFG camera monitoring to document important locations and minimum mule deer numbers crossing US30 during migration; estimated unfunded cost = fully funded.

8. Near-term actionable efforts to address Risks/Challenges:

- Technical Assistance
 - o Guidance as requested by land/resource management and regulatory agencies; estimated unfunded cost = fully funded.
 - o Support for big game studies and potential mitigation measures for energy, mineral, infrastructure, and other development projects; estimated unfunded cost = undetermined.
- Winter Range and Migration Habitat
 - o 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 = undetermined.
 - o 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 = undetermined.
 - o Development, funding, and implementation as appropriate of voluntary cooperative big game habitat management projects with partners in coordination with existing habitat conservation programs (e.g., NRCS

and FSA Farm Bill programs and USFWS Partners for Fish and Wildlife Program).

- Transportation
 - o ITD design and construction of the US30 Rocky Point wildlife crossing and funnel fencing project; estimated unfunded cost = \$18,000,000.
 - o IDFG support as requested by ITD for the Rocky Point project; estimated unfunded cost = undetermined.
 - o IDFG pre- and post-construction effectiveness monitoring of the Rocky Point wildlife crossing structures and funnel fencing (e.g., GPS telemetry study, roadkill data collection, and camera monitoring); estimated cost = \$150,000/year.
 - o IDFG and ITD cooperative assembly of big game movement and roadkill data for US89; estimated unfunded cost = undetermined.

9. Accomplishments since Action Plan VI.0:

- Winter Range
 - o Removed 7.25 miles of hazardous fencing and converted to wildlife-friendly fencing on private land on the Bear Lake Plateau in mule deer winter range and sage-grouse habitat during 2021-2023– see Photo 3 on page 21 of the newly constructed wildlife-friendly fence. Collaborative partners included private landowners, IDFG, USFWS, MDF/Cabela's Bass Pro Shops, and OSC.
- Transportation
 - o In 2019, IDFG and partners secured \$1,200,000 and acquired conservation easements on 1,800 acres allowing ITD to proceed with designing and engineering the US30 Rocky Point wildlife crossing project.
 - o In 2020, technical assistance site-visit by partners to provide input on the crossing locations, design considerations, and fence

locations for the US30 Rocky Point wildlife crossing structures and funnel fencing.

- o ITD and IDFG outreach to local communities, city council, and county commission regarding the Rocky Point wildlife crossing project.
- Research
 - o GPS radiotelemetry collaring and monitoring of 24 elk during winters of 2019 and 2020 on the Bear Lake Plateau.
 - o GPS radiotelemetry collaring and monitoring of 84 adult mule deer on winter range from 2020 to 2023 to aid siting of the Rocky Point wildlife crossing structures.

- o ITD staff assisting IDFG with chronic wasting disease sampling of roadkill mule deer.

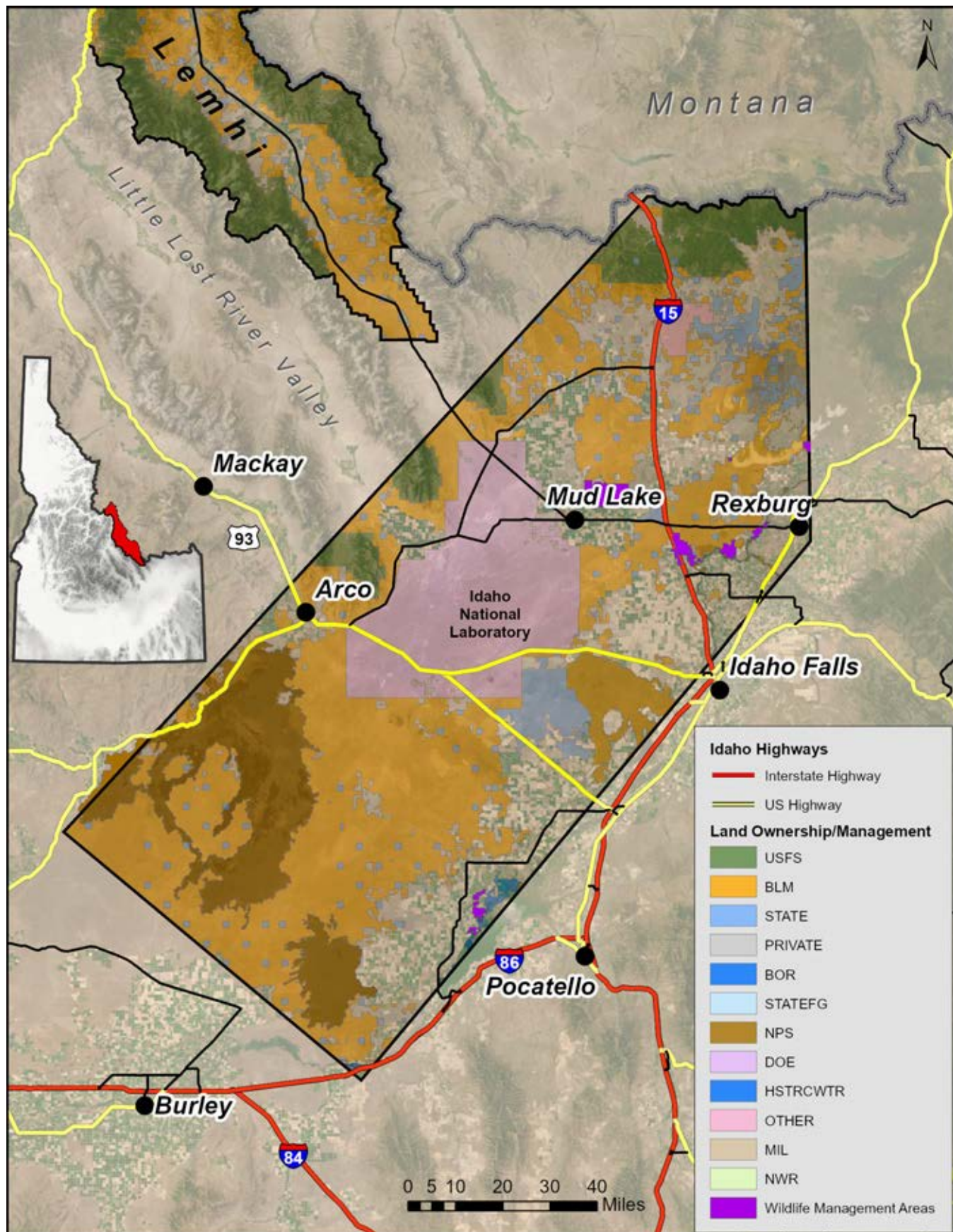
10. Other issues for awareness:

- 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 2 years.



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

Figure 5. Big Desert-Mountain Valley Complex Priority Area.



Big Desert–Mountain Valley Complex (Figure 5)

1. Why area was selected:

- Contains important winter range for migratory pronghorn, mule deer, and elk.
- Pronghorn migrations are potentially 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 watershed, Sand Creek Desert, and 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 1* (Kaufmann et al. 2020):
 - Antelope Creek Mule Deer
- Mapped migrations in *Ungulate Migrations of the Western United States, Volume 2* (Kaufmann et al. 2022a):
 - Reno Mule Deer
 - Medicine Lodge Elk
 - Reno Elk
 - Upper Snake River Plain Pronghorn
 - Owinza Pronghorn
- Mapped migrations in *Ungulate Migrations of the Western United States, Volume 3* (Kaufmann et al. 2022b):
 - Sand Creek Mule Deer

Big Game Winter Range and Migration Priority Areas

- Sand Creek Elk
- Teton River Elk
- Shotgun Valley Pronghorn

• Notes

- Priority Area maps are provisional and subject to change as new information becomes available.
- IDFG analyses are ongoing to improve winter range and migration route mapping.
- Spatial data for IDFG’s mapped migrations are available upon request: <https://idfg.idaho.gov/species/request-data>.

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

4. Important stopover areas:

- Craters of the Moon National Monument & Preserve.
- Reno Point area.
- Howe area.

5. Landownership: Private, BLM, US Department of Energy, Craters of the Moon National Monument & 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 wildlife-vehicle collisions and movement impediments, within winter range and migration habitat.

7. 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 = fully funded.

- o Responses to requests for input from regulatory agencies (e.g., BLM, USFS, IDL, ITD, FERC, BOR, IDWR, and counties) regarding land use planning, travel planning, and potential project effects to big game populations and habitat, including for example subdivision, water, energy, mineral, infrastructure, and transportation projects; estimated unfunded cost = fully funded.
- o Coordination with and support for ITD to assist with assessing and addressing potential wildlife-vehicle conflicts; estimated unfunded cost = fully funded.
- Winter Range and Migration Habitat
 - o 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.
 - o IDFG big game GPS telemetry studies describing winter range use, migration, interstate movements, and interactions with I15; estimated unfunded cost = undetermined.
 - o NPS camera monitoring of migrating pronghorn and mule deer across the Craters of the Moon National Monument & Preserve; estimated unfunded cost = fully funded.
 - o Cooperative projects with private landowners to upgrade fences to wildlife-friendly standards to improve visibility to big game, sage-grouse, short-eared owls, and other raptors; estimated unfunded cost = fully funded.
- Transportation
 - o IDFG and ITD cooperative roadkill data collection to assess wildlife-vehicle collision

frequency and locations on I15; estimated unfunded cost = fully funded.

8. Near-term actionable efforts to address Risks/Challenges:

- Technical Assistance
 - o Guidance as requested by land/resource management and regulatory agencies; estimated unfunded cost = fully funded.
 - o Support for big game studies and potential mitigation measures for energy, mineral, infrastructure, and other development projects; estimated unfunded cost = undetermined.
- Winter Range and Migration Habitat
 - o 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 = undetermined.
 - o 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 = undetermined.
 - o Development, funding, and implementation as appropriate of voluntary cooperative big game habitat management projects with partners in coordination with existing habitat conservation programs (e.g., NRCS and FSA Farm Bill programs and USFWS Partners for Fish and Wildlife Program).
- Transportation
 - o IDFG analysis of big game movements and winter range use to assess wildlife-vehicle conflicts with I15 including big game collisions; estimated unfunded cost = undetermined.

- o Cooperative evaluation among stakeholders (e.g., private landowners, communities, counties, ITD, and IDFG) to assess opportunities to improve I15 motorist safety by reducing wildlife-vehicle conflict; estimated unfunded cost = undetermined.

9. Accomplishments since Action VI.O:

- Migration Habitat
 - o Modified or removed 14.5 miles of fencing to improve big game migration on Mud Lake and Sterling WMAs during 2018-2022.
 - o Replaced or modified 10 miles of fencing to facilitate the Snake River Pronghorn herd migration during 2020-2022.
 - o Replaced 5.75 miles of net wire fencing with wildlife-friendly fencing in Crooked Creek – see Photo 4 on page 26 of the net wire fence removed and new wildlife-friendly fence in the background during 2020. Collaborative partners included private landowners, USFWS, MDF/Cabela's Bass Pro Shops, and IDFG).
 - o Installed 5.25 miles of wildlife-friendly fencing, which will improve grazing management and facilitate big game migration on private land in the Sand Creek Desert during 2021-2023 (collaborative partnership with USFWS and private landowner).
 - o Replaced 4 miles of fencing with wildlife-friendly fencing in the Big Lost River and Birch Creek areas during 2021.
 - o Removed 4 miles of burned and dilapidated fencing and replaced with wildlife-friendly fence in the Medicine Lodge watershed (collaborative partnership with USFWS, FSA, and private landowner).
 - o Removed 8.5 miles of woven wire fencing in Fremont County and replaced with wildlife-friendly fencing during 2020-2021.
 - o Altogether, 52 miles of fence were removed, modified, or converted to wildlife-friendly

fence during 2018-2023 (partners included private landowners, USFWS, MDF/Cabela's Bass Pro Shops, BLM, NRCS, Pheasants Forever, Backcountry Hunters and Anglers, Greater Yellowstone Coalition, Rocky Mountain Elk Foundation, Idaho National Laboratory (INL), and IDFG).

- Winter Range

- o On the Mud Lake WMA and INL lands, planted 415 acres of sagebrush, treated 600 acres for noxious/invasive weeds, and planted 20 acres of wet meadow during 2020-2022.
 - o Reseeded BLM, IDL, and private lands within the Grassy Ridge Fire during 2019-2020 (9,570 acres improved: 7,320 BLM, 1,470 IDL, and 780 acres private).
 - o All projects combined resulted in 10,600 acres improved for big game and sage-grouse during 2019-2022 (partners included IDFG, BLM, IDL, Pheasants Forever, Bayer, and INL).
- Research
 - o GPS radiotelemetry collaring and monitoring of 38 mule deer and 50 elk in the Sand Creek Desert and Market Lake areas during 2019-2023.
 - o GPS radiotelemetry collaring and monitoring of 56 pronghorn during 2019-2023 intended to identify movement patterns, potential migration impediments, 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 improve motorist safety by reducing wildlife-vehicle collisions with elk on I15.
- I15 likely impedes some traditional east-west pronghorn migrations between winter and summer ranges.

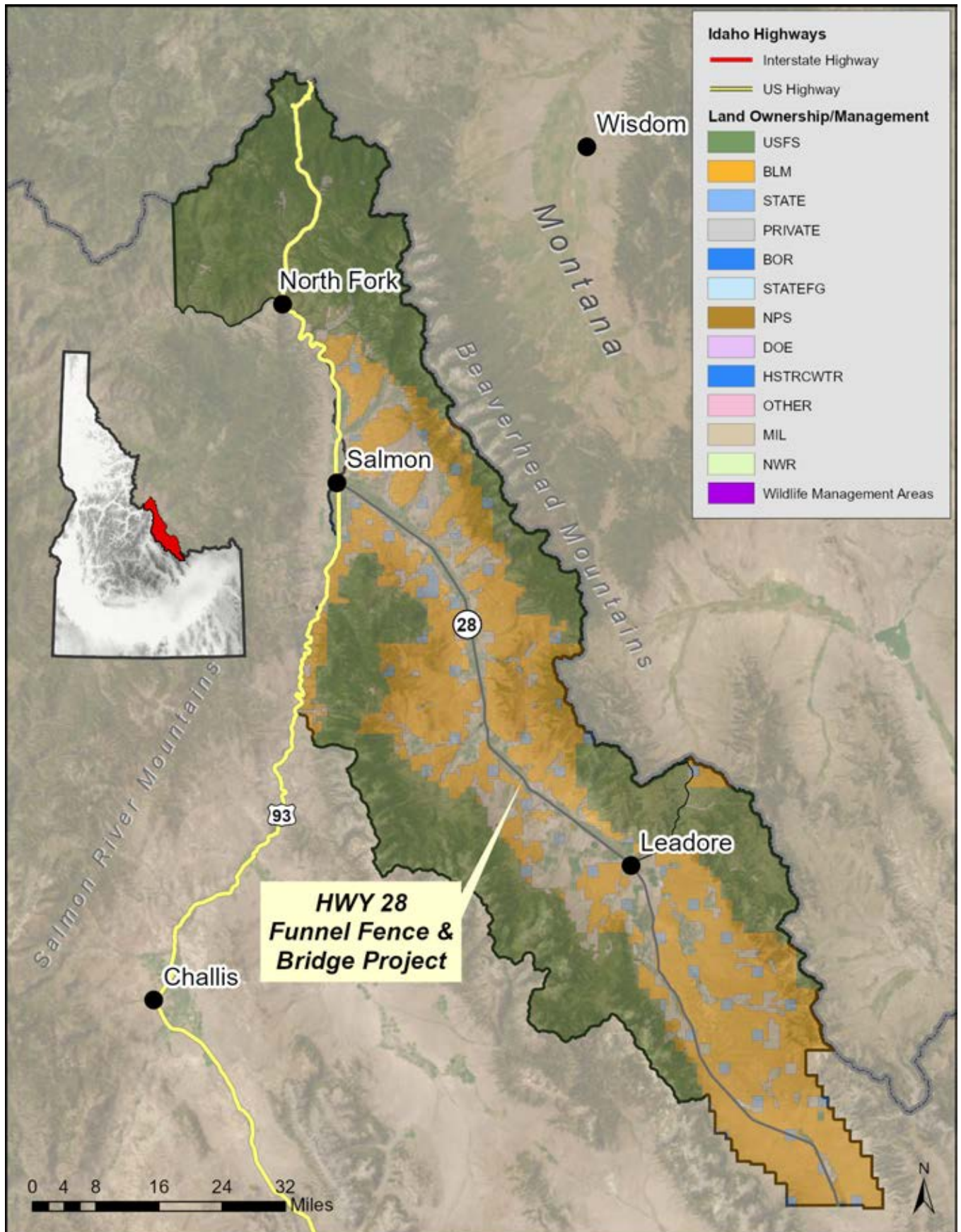


Photo 4. New wildlife-friendly fence replaces woven wire fence in Crooked Creek in 2020.



Pronghorn CCBY IDAHO FISH AND GAME

Figure 6. Lemhi Valley Complex Priority Area.



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's and Montana's Beaverhead Mountains.
- Provides seasonal range for more than 750 pronghorn.
- Established local public support for improving big game winter range, including willing-landowner conservation easements that preserve working lands, open spaces, and wildlife habitat.
- Public lands with federal approvals available for noxious/invasive weed treatments.
- Mule deer, elk, and pronghorn movements overlap with Montana Fish Wildlife and Parks' Anaconda to Big Hole SO3362 Priority Area.

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.
 - o Winter Range – Low elevation areas along the Lemhi and Salmon rivers to the confluence with the North Fork of the Salmon River.
 - o 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. 2022a):
 - o Pattee Creek Mule Deer
 - o Reese Creek Mule Deer
 - o North Fork Salmon River Mule Deer

- o Central Beaverhead Elk
- o Pattee Creek Elk
- o Medicine Lodge Elk
- o North Fork Salmon River Elk
- o Reno Elk
- o Upper Snake River Plain Pronghorn
- Notes.
 - o Priority Area maps are provisional and subject to change as new information becomes available.
 - o IDFG analyses are ongoing to improve winter range and migration route mapping.
 - o Spatial data for IDFG's mapped migrations are available upon request: <https://idfg.idaho.gov/species/request-data>.

3. *Habitat types:* Sagebrush steppe, forest, agriculture, and riparian in the Beaverhead Mountain ecological section (IDFG 2017).

4. Important stopover areas:

- Reese Creek.
- Pattee Creek.
- Gilmore Summit area.

5. *Landownership:* Private, BLM, USFS, State-of-Idaho.

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. Ongoing efforts to address Risks/Challenges:

- Technical Assistance
 - o 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, habitat restoration, and wildlife-friendly fencing projects; estimated unfunded cost = fully funded.

- o Responses to requests for input from regulatory agencies (e.g., BLM, USFS, IDL, ITD, FERC, BOR, IDWR, and counties) regarding land use planning, travel planning, and potential project effects to big game populations and habitat, including for example subdivision, water, energy, mineral, infrastructure, and transportation projects; estimated unfunded cost = fully funded.
- o Coordination with and support for ITD to assist with assessing and addressing potential wildlife-vehicle conflicts; estimated unfunded cost = fully funded.
- Winter Range and Migration Habitat
 - o 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.
 - o Noxious/invasive weed mapping on public and private lands; estimated unfunded cost = fully funded.
 - o Noxious/invasive weed treatment and reseeding of winter range on USFS lands in the Salmon River Breaks; estimated unfunded cost = fully funded.
 - o Cheatgrass treatments on USFS lands comprising winter range within the Moose Fire; estimated unfunded cost = undetermined.
 - o Cheatgrass treatments on IDL, BLM, and private lands in the Upper Lemhi Valley; estimated unfunded cost = fully funded.

- Transportation

- o Cooperative IDFG and ITD monitoring of SH28 roadkill and big game passage for 9 recently replaced Lemhi River bridges and associated big game funnel fencing; estimated unfunded cost = fully funded.
- o Cooperative MDF, IDFG, and ITD monitoring of new one-way gate designs to provide big game escapement from rights-of-ways with big game funnel fencing; estimated unfunded cost = fully funded.

8. Near-term actionable efforts to address Risks/Challenges:

- Technical Assistance

- o Guidance as requested by land/resource management and regulatory agencies; estimated unfunded cost = fully funded.
- o Support for big game studies and potential mitigation measures for mineral, infrastructure, and other development projects; estimated unfunded cost = undetermined.

- Winter Range and Migration Habitat

- o 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 = undetermined.
- o 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 = undetermined.
- o Development, funding, and implementation as appropriate of voluntary cooperative big game habitat management projects with partners in coordination with existing

habitat conservation programs (e.g., NRCS and FSA Farm Bill programs and USFWS Partners for Fish and Wildlife Program).

Lemhi Regional Land Trust, National Wildlife Federation, Salmon Valley Stewardship, and IDFG.

- Transportation

- o Depending on results of ongoing testing, add one-way gates to the existing SH28 funnel fencing to provide big game escapement and sportsmen access in addition to existing jump-outs; estimated unfunded cost = undetermined.
- o Extend the existing SH28 big game funnel fencing an additional 2 miles in coordination with ITD, private landowners, and other stakeholders; estimated unfunded cost = undetermined.

9. Accomplishments since Action Plan VI.O:

- Migration Habitat

- o Modified existing fencing to create 65 wildlife-friendly fence crossings in 15 miles of woven wire fencing in the upper Lemhi Valley during 2021-2023 - see Photo 5 on page 31 of elk jumping a wildlife-friendly fence crossing installed in woven wire fencing. Collaborative partners included private landowners, MDF, IDFG, and USFWS.
- o Removed 11 miles of fence on private land reducing impediments to interstate herds of mule deer and elk in the Beaverhead Mountains during 2020. Collaborative partnership included private landowners, MDF, private volunteers, and USFWS.
- o Lemhi Regional Land Trust fence modification grant converted 10 miles of fence to wildlife-friendly standards on elk and deer winter range in the Bohannon Creek watershed during 2019..
- o Overall, 36 miles of fence were removed, modified, or converted to wildlife-friendly fence standards in the Lemhi Valley during 2019-2023. Collaborative partners included private landowners, ITD, USFWS, MDF,

- Winter Range

- o Noxious/invasive weed treatments during 2020/2021 in the Lemhi River Valley through a Cheatgrass Challenge Grant in cooperation with private landowners, NRCS, BLM, Lemhi Cooperative Weed Management Area, and OSC.
 - o Preemergent herbicide treatments for cheatgrass on IDL, BLM, and private lands in Kriley Gulch, Kirtly Creek, Bohannon Creek, Birch Creek, and Carmen Creek (9,615 acres treated in 2021-2023).
 - o Preemergent herbicide treatments for cheatgrass and associated noxious/invasive weeds on USFS lands in the Salmon River Breaks (17,246 acres treated in 2020-2022).
 - o All projects combined resulted in 26,861 acres treated during 2019 - 2023. Collaborative partners included private landowners, USFS, MDF, BLM, NRCS, OSC, USFWS, IDL, Lemhi County, Salmon Valley Stewardship, and IDFG. Treatments resulted in 80-90% reduction of cheatgrass -see Photo 6 on page 32 for example results of treated and untreated cheatgrass areas. With all treatment areas having intact perineal forbs and native shrubs, removing the cheatgrass resulted in 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 rabbit.
- Transportation
- o Nine SH28 bridges over the Lemhi River were replaced with increased heights to aid big game and fish passage. With construction of wildlife-friendly bridges, ITD also added bat roost boxes under each bridge. In addition to mule deer and elk, other big game species benefited from

bridge improvements - see Photo 7 on page 32 of a moose crossing under a bridge within the first few days after construction. No big game species were documented crossing under the previous bridges. Public fishing access sites were added to each replaced bridge.

- o Six miles of funnel fence installed to direct movement under 2 improved SH28 bridges over the Lemhi River. 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.
- Research
 - o GPS radiotelemetry collaring and monitoring of 32 mule deer and 104 elk in the Lemhi River and upper Salmon River watersheds during 2019-2023.
 - o GPS radiotelemetry collaring and monitoring of 34 pronghorn that traveled between or within the Lemhi and Big Desert Priority Areas in 2019 and 2020.



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



Photo 6. Untreated cheatgrass area adjacent to treatment area where cheatgrass control was performed 1-year prior on winter range in the Lemhi Priority Area in 2021.



Photo 7. Moose crossing under SH28 after bridge improvement and big game funnel fencing projects were completed along the Lemhi River in 2020.



Public Input Summary

The draft Idaho Action Plan was available for public review and comment on the IDFG website for 22 days from 3 April 2023 and 24 April 2023. A press release explaining the opportunity to comment on the draft Idaho Action Plan was sent to 250 media outlets and interested parties. Additionally, social media posts were used to encourage interested individuals to provide comments.

Fifty-seven unique users provided their opinion. One hundred percent of commenters were Idaho residents. Ninety-three percent of respondents either generally supported ($n = 40$) or supported with concerns ($n = 13$) the draft plan. One respondent did not support the draft plan and 3 did not provide a response indicating a level of support (Table 1).

Forty-six respondents provided written responses. Amongst the 46 written responses, there were 98 substantive comments (Graph 1). Twenty-four of those comments were not related to the Idaho Action Plan. Of the seventy-four comments related to the Idaho Action Plan, 57 were in-scope. Staff incorporated 55 of those comments into the final V5.0 of the

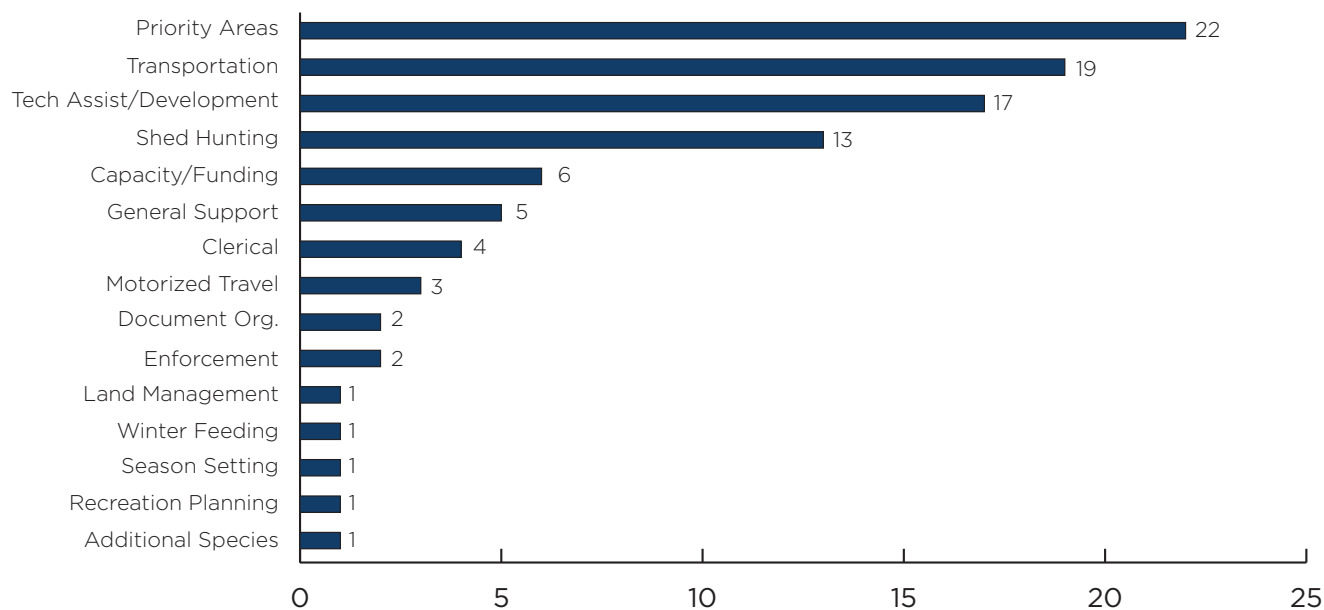
Idaho Action Plan. The 2 in-scope comments not included were related to document organization. The most frequently mentioned topics of the 57 in-scope comments were: priority areas (22 comments), transportation (11 comments), technical assistance/development (11 comments), capacity and funding (6 comments), and clerical (4 comments) (Graph 2). The 1 respondent who did not support the plan did not provide any additional written comment.

After addressing public comments, the draft Action Plan was modified and prepared for consideration and adoption by the Idaho Fish and Game Commission. The Fish and Game Commission adopted the Action Plan during its 27 July 2023 business meeting.

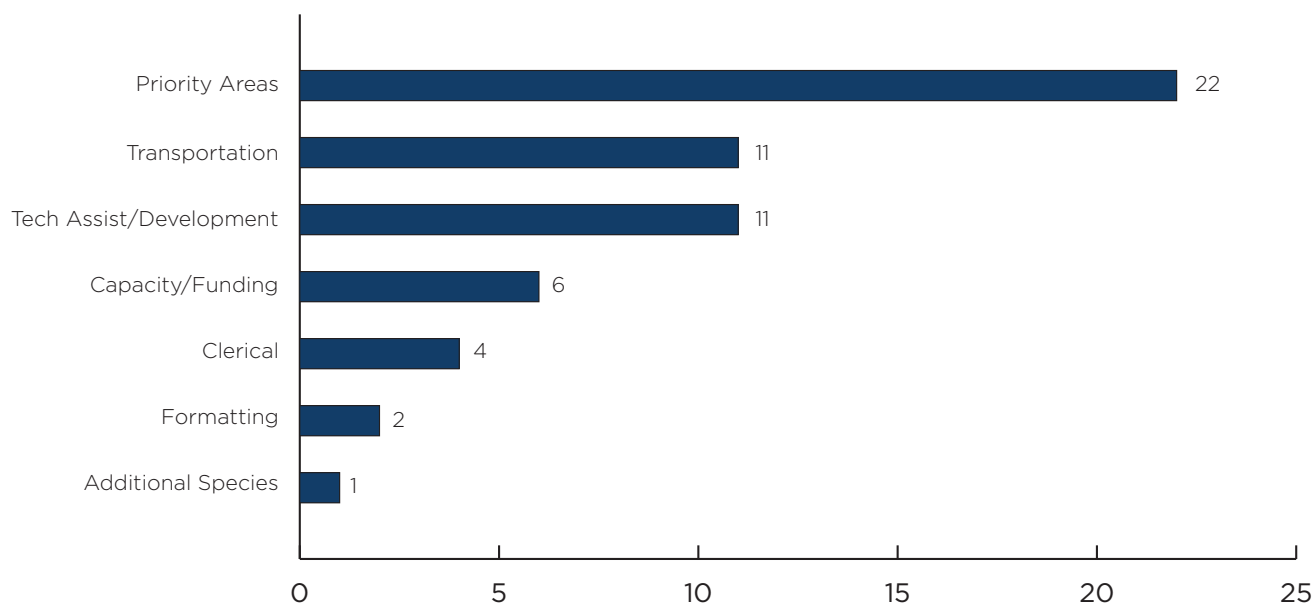
Table 1. Level of support for the Idaho Action Plan based on online respondents ($n = 57$).

Level of Support	Respondents (n)	Proportion of Respondents (%)
Generally support	40	70%
Support with concerns	13	23%
Do not support	1	2%
Did not indicate a preference	3	5%

Graph 1. Topics discussed in all submitted comments ($n = 98$).



Graph 2. Topics discussed within the in-scope comments ($n = 57$).





Literature Cited

- Idaho Department of Fish and Game (IDFG). 2014. Idaho Elk Management Plan 2014-2024. Idaho Department of Fish and Game, Boise, USA
- Idaho Department of Fish and Game (IDFG). 2017. Idaho State Wildlife Action Plan, 2015. Boise (ID): Idaho Department of Fish and Game. Grant No.: F14AF01068 Amendment #1. Available from: <http://fishandgame.idaho.gov/>. Sponsored by the US Fish and Wildlife Service, Wildlife and Sport Fish Restoration Program.
- Idaho Department of Fish and Game (IDFG). 2019. Idaho Mule Deer Management Plan 2020-2025. Idaho Department of Fish and Game, Boise, USA
- Idaho Department of Fish and Game (IDFG). 2023. Idaho Pronghorn Management Plan, 2023-2028. Idaho Department of Fish and Game, Boise, USA.
- Kauffman, M.J., Copeland, H.E., Berg, J., Bergen, S., Cole, E., Cuzzocreo, M., Dewey, S., Fattebert, J., Gagnon, Gelzer, E., Geremia, C., Graves, T., Hersey, K., Hurley, M., Kaiser, J., Meacham, J., Merkle, J., Middleton, A., Nuñez, T., Oates, B., Olson, D., Olson, L., Sawyer, H., Schroeder, C., Sprague, S., Steingisser, A., Thonhoff, M. 2020. Ungulate migrations of the Western United States, Volume 1: U.S. Geological Survey Scientific Investigations Report 2020-5101, <https://doi.org/10.3133/sir20205101>.
- Kauffman, M. J., B. Lowrey, J. Beck, J. Berg, S. Bergen, J. Berger, J. Cain, S. Dewey, J. Diamond, O. Duvuvuei, J. Fattebert, J. Gagnon, J. Garcia, E. Greenspan, E. Hall, G. Harper, S. Harter, K. Hersey, P. Hnilicka, M. Hurley, L. Knox, A. Lawson, E. Maichak, J. Meacham, J. Merkle, A. Middleton, D. Olson, L. Olson, C. Reddell, B. Robb, G. Rozman, H. Sawyer, C. Schroeder, B. Scurlock, J. Short, S. Sprague, A. Steingisser, N. Tatman. 2022a. Ungulate Migrations of the Western United States, volume 2: U.S. Geological Survey Scientific Investigations Report 2022-5008, <https://doi.org/10.3133/sir20225008>.
- Kauffman, M., Lowrey, B., Berg, J., Bergen, S., Brimeyer, D., Burke, P., Cufaude, T., Cain, J.W., III, Cole, J., Courtemanch, A., Cowardin, M., Cunningham, J., DeVivo, M., Diamond, J., Duvuvuei, O., Fattebert, J., Ennis, J., Finley, D., Fort, J., Fralick, G., Freeman, E., Gagnon, J., Garcia, J., Gelzer, E., Graham, M., Gray, J., Greenspan, E., Hall, L.E., Hendricks, C., Holland, A., Holmes, B., Huggler, K., Hurley, M., Jeffreys, E., Johnson, A., Knox, L., Krasnow, K., Lockyer, Z., Manninen, H., McDonald, M., McKee, J.L., Meacham, J., Merkle, J., Moore, B., Mong, T.W., Nielsen, C., Oates, B., Olsen, K., Olson, D., Olson, L., Pieron, M., Powell, J., Prince, A., Proffitt, K., Reddell, C., Riginos, C., Ritson, R., Robatcek, S., Roberts, S., Sawyer, H., Schroeder, C., Shapiro, J., Simpson, N., Sprague, S., Steingisser, A., Tatman, N., Turnock, B., Wallace, C., and Wolf, L. 2022b. Ungulate migrations of the western United States, Volume 3: U.S. Geological Survey Scientific Investigations Report 2022-5088, 114 p., <https://doi.org/10.3133/sir20225088>.



APPENDIX A: Department of Interior 4 July 2023 letter to the Idaho Department of Fish and Game soliciting a 2023 update of Idaho's SO3362 Action Plan



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Washington D.C. 20240



July 4, 2023

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

Dear Jim:

The Department of the Interior Secretarial Order 3362: Improving Habitat Quality in Western Big Game Winter Range and Migration Corridors, continues to be a shining example of state-federal collaboration and partnership. To remain relevant and forward looking, we annually provide the opportunity to update your respective SO3362 Action Plan. Please accept this letter as an invitation to your agency to update your respective Action Plan for 2023. As in the past, it is your decision whether updating your state's plan is desired or necessary.

We developed the concept of the Action Plans to facilitate strategic and focused habitat conservation at broad landscape scales. While the 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. Partners are indeed using the Plans to identify areas for focused conservation efforts and investments. The time, attention, and detail your agency puts into each iteration of your plan is recognized and much appreciated.

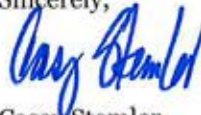
As your agency contemplates an update to your Action Plan, please consider incorporating new data/mapping analysis for your SO3362 priority seasonal habitat and/or migration corridors, information on completed habitat conservation projects, and new habitat conservation project opportunities within the priority areas. Specifically, it would be most helpful if your agency could include "shovel-ready" or close to "shovel-ready" projects within your selected priority corridors or seasonal habitats. 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.

As the Coordinator for this Order please send me (casey_stemler@fws.gov) and SO3362 Liaison Tom Olliff (Tom_Olliff@nps.gov), your final 2023 Action Plan submission by

October 2, 2023. Please do not hesitate to contact me with questions or concerns via email or by phone: 202-320-9904 (cell). Additionally, I 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,



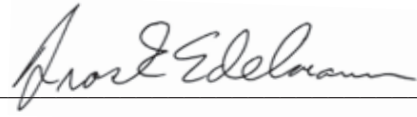
Casey Stemler
Coordinator, SO3362

cc: Tom Olliff

Submitted by: Idaho Department of Fish and Game

A handwritten signature in black ink, reading "Jim Fredericks", written over a horizontal line.

Jim Fredericks
Director

A handwritten signature in black ink, reading "Frank Edelmann", written over a horizontal line.

Frank Edelmann
Chief, Technical Services Bureau



Idaho Action Plan (V5.0)

Improving Big Game Winter Range and Migration Routes

August 2023