



January 13, 2022

Idaho Transportation Department, District 6  
Attention: Jason Minzghor, District 6 Engineer; and, Michah Brown, Project Engineer  
206 North Yellowstone Highway  
Rigby, Idaho 83442

Comments submitted via email to:

[comments@us20ashtonto87.com](mailto:comments@us20ashtonto87.com); [Jason.Minzghor@itd.idaho.gov](mailto:Jason.Minzghor@itd.idaho.gov); and, [Micah.Brown@itd.idaho.gov](mailto:Micah.Brown@itd.idaho.gov)

Dear Mr. Minzghor and Mr. Brown,

On behalf of Greater Yellowstone Coalition (GYC), Idaho Conservation League (ICL), and National Parks Conservation Association (NPCA), we submit the following supplemental comments on the “Level III Screening Alternatives” presented during the “Public Open House and Online Meeting #4” phase of the Planning and Environmental Linkages (PEL) study for U.S. Highway 20 (US20) from Ashton, Idaho, to the junction with State Highway 87 (SH87).

Since 1983, GYC has worked with people to protect the lands, waters, and wildlife of the Greater Yellowstone Ecosystem (GYE) on behalf of its 90,000 supporters. GYC has long cooperated with the agencies and organizations that manage US20 and the surrounding areas, including Idaho Transportation Department (ITD), Federal Highway Administration (FHWA), Idaho Department of Fish and Game (IDFG), U.S. Fish and Wildlife Service (USFWS), and U.S. Forest Service (USFS).

ICL has similarly worked to conserve Idaho’s clean water, wildlife, public lands, and quality of life through citizen action, public education, and professional advocacy since 1973. As Idaho’s largest statewide conservation organization, ICL represents over 25,000 supporters who have a deep personal interest in ensuring that Idaho’s wildlife and people coexist in a safe and sustainable manner.

And NPCA has been the leading voice of the American people in protecting and enhancing our National Park System since 1919, working together with our over 1.6 million members and supporters to preserve our nation’s natural, historical, and cultural heritage for present and future generations. NPCA has a long history working at the local, state, and national level to advocate for wildlife in the GYE. For decades we have worked alongside agency, Tribal, community, and conservation partners to protect habitat, corridors, and connectivity for park wildlife in Idaho, Wyoming, and Montana.

Together, supporters of GYC, ICL, and NPCA have historically and continue to utilize the “US-20 Ashton to SH-87 Junction Project” (Project) area for myriad activities, including but not limited to hiking, horseback riding, hunting, camping, fishing, wildlife watching, botanizing, ski touring, snow machining, and cycling.

We also wish to recognize and acknowledge that the Project occurs on the traditional homelands of the Shoshone-Bannock Tribes and Nez Perce Tribe. Valuable cultural resources with great historical significance are located in the US 20 corridor, including but not limited to the Nez Perce National Historic Trail, also known as the Nee-Me-Poo Trail. Section 101(d)(6)(B) of National Historic Preservation Act (NHPA) requires federal agencies to consult with any Indian tribe that attaches religious and cultural significance to a historic property that may be affected by an undertaking.<sup>1</sup> We encourage robust coordination between the state and federal agencies and the Shoshone-Bannock Tribes and Nez Perce Tribe in the form of government-to-government consultations in accordance with the requirements set forth by the NHPA. Here, we emphasize that the consultation process must provide tribes with reasonable opportunities to identify their concerns; advise on the identification and evaluation of resources; analyze the Project impacts on those resources; and participate in the mitigation or resolution of those adverse impacts.<sup>2</sup>

Thank you for extending the comment period and committing to the careful consideration of the following supplemental comments. If you have any additional questions or concerns, please feel free to contact us directly.

Sincerely,

*Allison Michalski*

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<sup>1</sup> 16 U.S.C. § 106 (2014).

<sup>2</sup> "Tribal Consultation Guidelines." FHWA, [https://www.environment.fhwa.dot.gov/env\\_topics/tribal/tribal\\_consultation\\_guidelines.aspx#:~:text=Federal%20agencies%20are%20required%20to,be%20affected%20by%20an%20undertaking.](https://www.environment.fhwa.dot.gov/env_topics/tribal/tribal_consultation_guidelines.aspx#:~:text=Federal%20agencies%20are%20required%20to,be%20affected%20by%20an%20undertaking.)

## **GENERAL OBSERVATIONS, COMMENTS, AND RECOMMENDATIONS**

### **THE PEL PROCESS**

Our organizations have submitted comments during all phases of the public comment period for the US 20 PEL study of the corridor; first in June 2022 and again in December 2022. We have also met one-on-one with ITD staff and attended every public meeting. At this juncture, we fail to see how our comments, which have focused on the impacts on wildlife and the community of Island Park, have been considered and reflected in the Level III Screening Alternatives being advanced in the PEL. In fact, we observe that ITD is simply moving forward with road expansion and not considering the unique natural and social values of Island Park, which US 20 bisects. If part of the benefits of a PEL are to promote environmental stewardship and cost-effective solutions, we fail to see how this PEL process has accomplished either of those outcomes thus far.

### **THE UNIQUE AND IMPORTANT VALUE OF ISLAND PARK AND US 20**

We cannot stress enough the importance of the Island Park area for the GYE. Island Park is considered part of the High Divide landscape, the critical corridor for wildlife movement between Yellowstone National Park and the Crown of the Continent. These two protected landscapes provide core and connective habitat to many of North America's major species, including herds of ungulates and large carnivores. The screening alternatives presented to date not only fail to acknowledge the impacts on wildlife, but they also fail to address the ecological value of this area entirely.

As part of the GYE, Island Park boasts a rich population of wildlife including elk, moose, and mule deer, and endangered and threatened species like grizzly bear and wolverine. Wildlife can survive and thrive in Island Park, because of the quality of the habitat. Decades of conservation work have recovered wildlife populations that were once scant due to efforts to conserve and protect their habitat. Yellowstone grizzly bears are an excellent example of this recovery. Where grizzly bears were once numbered in the hundreds, there are now over a thousand in the GYE. Today, Island Park contains a healthy population of grizzly bears with many examples of sows with multiple cubs. Another example of wildlife recovery is the Sand Creek elk herd, which moves through Island Park, often crossing US 20 to reach their winter range in the Sand Creek desert. Decades of efforts by the Bureau of Land Management, IDFG, and private landowners to protect elk winter range in Sand Creek have resulted in a herd size of just a few individuals to over 3000. US 20 road expansion poses a threat to both recovery successes, because of the possibility that the road will pose a significant, if not permanent, barrier to wildlife movement. If wildlife is not able to access their habitat, whether it is core or connective habitat to seasonal range, wildlife populations decline or simply disappear.

US 20 is unique in that it is the closest major highway to Yellowstone National Park, just 13 miles from the Park's boundary, and bisects critical aquatic and terrestrial habitat. Unlike other highways that surround Yellowstone, US 20 has become a freight corridor linking communities like Idaho Falls with Bozeman, Montana, both of which are growing at 2-3% annually. As Fremont County maintains a low or stable growth rate, the counties adjacent to them in Idaho and Montana - Bonneville, Madison, and Teton counties in Idaho; and Madison and Gallatin counties in Montana - are continuing to grow, some being the fastest growing in their state. Hence, the conundrum with the US 20 corridor: how can ITD safely and efficiently accommodate increasing traffic loads while maintaining or enhancing the ecological integrity and unique community of Island Park?

We appreciate and acknowledge the challenge of this question as it will fundamentally determine the fate of Island Park's natural resource values and unique community character for generations to come. Improvements to the corridor will either acknowledge the ecological impacts of a transportation

corridor by minimizing and mitigating those impacts or ignore them and cause irreparable harm through the fragmentation and loss of critical habitat. Studies have shown the main direct cause of biodiversity loss is land use changes. Coupled with the impacts of climate change such as large-scale fires, noxious weeds, and changing precipitation patterns, the outlook is dire for wildlife without thoughtful consideration and strong leadership to conserve and protect habitat.

Fortunately, we have choices. ITD can take the bold move to lower traffic volume through Island Park by encouraging or directing freight to interstate routes like I-15 and limit the Hwy 20 footprint or ensure there is robust mitigation to ensure permeability for wildlife as they move through the Hwy 20 corridor. The alternatives presented to date have not explored either of these alternatives.

## **PURPOSE AND NEED STATEMENT**

The purpose of a PEL is to consider factors, such as environmental factors, early in the transportation planning process with the intention that the PEL will utilize "...the information, analysis, and products developed during planning to inform the environmental review process."<sup>1</sup> As applied here, this PEL should consider factors, including environmental factors like wildlife, early in the planning process in order to inform subsequent environmental review associated with the Project. Furthermore, because "enhancing highway safety and operations by... decreasing severe crashes" is a stated purpose for the Project, this PEL should specifically consider environmental factors like wildlife as they relate to the relevant stated Project purpose of decreasing severe crashes.<sup>2</sup>

To address and reduce severe crashes, many of which are wildlife-vehicle collisions (WVCs) on US 20, it will be critical for ITD to integrate wildlife movement strategies in the corridor. If wildlife can move in and around the corridor, then it follows that drivers are less likely to collide with a moving animal in a WVC or related accident. However, integrating wildlife movement strategies in the corridor is more than just a tactic to reduce WVCs and decrease severe crashes. In response to public comment on the Project, ITD has now identified and elevated "Integrating wildlife movement strategies in the corridor" as a "Goal" in the "Draft Project Purpose and Need" statement.

Although FHWA provides limited guidance related to the definition of a "Goal," they do liken "Goals and Objectives statements" to "Purpose and Need" statements, articulating the same requirements for both types of statements. Using this guidance, we interpret "Goals and Objectives statements" to be like "Purpose and Need" statements, because both explicitly articulate a desired outcome for the Project. Applied here, "integrating wildlife movement in the corridor" is elevated to a desired outcome for the project, much like a statement of purpose and/or need.<sup>3</sup> Therefore, the alternatives that ITD selects and advances during this PEL process must achieve the desired outcome of integrating wildlife movement in the US 20 corridor. To date, ITD has not in a meaningful way integrated wildlife movement into the proposed alternatives.

Major road construction and expansion projects like this Project have enormous impacts, both direct and cumulative, on wildlife movement and migration as well as the ecological integrity of the ecosystems in which they are located. The "Wildlife Assessment for US 20 Junction of State Highway 87 to the Montana State Line: Targhee Pass Project" (Assessment) prepared by IDFG for ITD in 2018 notes that the US 20 corridor is within the GYE and one of the largest intact temperate ecosystems that

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<sup>3</sup> "Guidance on Using Corridor and Subarea Planning to Inform NEPA." FHWA, [https://www.environment.fhwa.dot.gov/env\\_initiatives/pel/corridor\\_nepa\\_guidance.aspx#toc321](https://www.environment.fhwa.dot.gov/env_initiatives/pel/corridor_nepa_guidance.aspx#toc321).

remains in the world.<sup>4</sup> This area of the GYE is also part of the High Divide, a corridor that connects the GYE to the Crown of the Continent Ecosystem, which is critically important for many ungulate species as well as other protected species, including but not limited to Grizzly bear, Canada lynx, and wolverine. The Assessment notes that following critical wildlife movements and migrations that currently occur in and around the US 20 corridor:

- *Ungulate migration routes in and out of YNP traverse US 20 as animals make their way to winter range on the Sand Creek Desert in Idaho (southwest of YNP) and the Madison Valley in Montana (northwest of YNP) during fall and return across US 20 in the spring to access summer range and calving/fawning areas in YNP and Island Park...*
- *Spectacular herds of bison, moose, elk, pronghorn and deer reside in and around YNP and migration is a crucial piece of their life history that allows them to return to winter ranges which have less-severe winter conditions and better access to forage (Fryxell and Sinclair 1988, Alerstam et al. 2003). Some of these migrations cross US 20 in the Targhee Pass project area...*
- *Non-migratory moose also live year-round along US 20 in the Targhee Pass project area, sometimes crossing the highway multiple times a day (Andreasen et al. 2014)...*
- *Wolverine and grizzly bears cross US 20 in the Targhee Pass project area as part of their daily movements and during once-in-a-lifetime dispersals away from natal ranges (Schwarz et al. 2009, Inman 2013, IGBST 2013 personal communication) ...*
- *Yellowstone cutthroat trout (YCT) live in the Henry's Lake watershed and spawn in tributaries adjacent to the Targhee Pass project area feeding into this world-class fishery.<sup>5</sup>*

IDFG's "State Wildlife Action Plan" (SWAP) also explicitly identifies several species of concern highest priorities with special conservation needs that utilize the Project area.<sup>6</sup> These species include grizzly bear, wolverine, and migratory ungulates, including pronghorn, mule deer, whitetail deer, and elk.

- *Grizzly bear and wolverine have both been documented traveling through this area (Figure 6; IFWIS observational data, IGBST data) and recent data show a radio-collared male wolverine home range overlapping US 20 in the Targhee Pass project area and a female wolverine home range directly adjacent to it (Heinemeyer et al. 2017)...*
- *Migratory elk and mule deer move across US 20 on Targhee Pass to reach winter range in the Madison Valley, as shown by Montana Fish Wildlife and Parks GPS radio-collar and IDFG observational data (Figure 8 and Figure 9; unpublished data).*
- *Global positioning system (GPS) radio-collar data from elk and non-migratory moose show that these large ungulates not only pose a safety hazard to motorists but also suggest that key sections of Targhee Pass are a substantial barrier to these animals (Figure 8 and Figure 10).<sup>7</sup>*

In this case, the proposals for road construction and expansion associated with the Project will certainly impede and ultimately, over the long-term, prohibit wildlife movement and migration in and around the US 20 corridor as traffic levels on US 20 continue to rise. The Assessment clearly indicates that the current and increasing levels of traffic and road infrastructure on US 20 pose a serious threat to wildlife

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<sup>4</sup> Seidler, Renee. "Wildlife Assessment for US 20 Junction of State Highway 87 to the Montana State Line: Targhee Pass Project." Idaho Fish and Game Research Report, Boise, Idaho, 2018.

<sup>5</sup> Seidler, Renee. "Wildlife Assessment for US 20 Junction of State Highway 87 to the Montana State Line: Targhee Pass Project." Idaho Fish and Game Research Report, Boise, Idaho, 2018.

<sup>6</sup> IDFG. 2017. Idaho State Wildlife Action Plan, 2015. Boise (ID): Idaho Department of Fish and Game. Grant No.: F14AF01068 Amendment #1. Retrieved from: <http://fishandgame.idaho.gov/>.

<sup>7</sup> 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/>.

in the form of wildlife-vehicle collisions (WVCs). Furthermore, the road infrastructure itself also contributes to the threat posed by WVCs, as wildlife attempt to move and migrate through unnavigable culverts along streams, lost habitat, and stress.<sup>8</sup>

As noted in the Assessment, road surface widening and increasing traffic make wildlife movement and migration more difficult.<sup>9</sup> This Project proposes to do both: widen the road surface and accommodate increasing traffic volumes, which will ultimately increase the difficulty for wildlife related to movement and migration in and around the US 20 corridor. FHWA indicates that there are several tools that transportation agencies have at their disposal to reduce or eliminate impacts of road construction and expansion projects. These tools include: the development of road alignments that avoid critical wildlife habitat; mitigating affected wildlife populations and habitats; and/or, compensating for the loss of wildlife habitat.<sup>10</sup>

We appreciate ITD's efforts to reduce the impacts of the Project on wildlife, specifically wildlife movement and migration, which can be seen in the proposals for multi-use crossing structures as well as some of the Level III Screening Alternatives that reflect a "No Build" design option or design options with smaller footprints that conform to the existing US 20 corridor. However, we believe the proposals for multi-use crossings do not achieve the stated goal or desired outcome for the Project to integrate wildlife movement in the US 20 corridor. Please find our suggestions for addressing wildlife movement and migration in and around the US 20 corridor below. These suggestions will be particularly important to consider considering the comprehensive road construction and expansion plans reflected in the Level III Screening Alternatives currently being advanced in this PEL process.

### **MULTI-USE CROSSING RECOMMENDATIONS**

#### **Multi-Use Crossing Location #1: Sheep Falls Road**

The first proposed multi-use crossing is Sheep Falls Road, which occurs at MP 366.90. This crossing is intended to accommodate recreationists in the form of pedestrians, cyclists, ATVs, and/or snowmobiles. At the same time, this crossing is additionally aimed at providing movement and migration opportunities for wildlife, specifically mule deer, elk, moose, and grizzly bear.

According to FHWA, multi-use crossings are not effective crossing structures for wildlife like moose and grizzly bear. According to the "*Wildlife Crossing Structures Handbook Design and Evaluation in North America*," (Handbook), Moose prefer "large, open structures with good visibility and vertical clearance in areas with little human disturbance" and regular human use of multi-use crossing structures would deter moose use of the structure.<sup>11</sup> Similarly, the Handbook states that grizzly bear require large structures and/or "preference for areas in close proximity to humans."<sup>12</sup> Please note that the Handbook language is unclear as published. Research unequivocally indicates that grizzly bears are averse to human presence, so this statement is likely meant to indicate that these species preference for areas in close proximity to humans is low.

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<sup>8</sup> Seidler, Renee. "Wildlife Assessment for US 20 Junction of State Highway 87 to the Montana State Line: Targhee Pass Project." Idaho Fish and Game Research Report, Boise, Idaho, 2018.

<sup>9</sup> Seidler, Renee. "Wildlife Assessment for US 20 Junction of State Highway 87 to the Montana State Line: Targhee Pass Project." Idaho Fish and Game Research Report, Boise, Idaho, 2018.

<sup>10</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>11</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>12</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

Consequently, the multi-use crossing structure proposed for Sheep Falls Road immediately fails to provide movement and migration opportunities for the moose and grizzly bear species it intends to serve. While mule deer and elk may still attempt to utilize this crossing, it is likely that recreation and human activity will impact their ability to fully utilize this crossing effectively.

The ITD Research Report, “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways,” (Methodology Report) suggests that elk are one of the wariest ungulate species in the west and a very difficult species to convince to utilize crossing structures near roads.<sup>13</sup> The Methodology Report notes that entire herds do not regularly use culverts, so culverts are not a viable crossing structure option. Both underpasses and overpasses have shown some success, but overpasses are potentially unattractive to cow elk.<sup>14</sup> The Methodology Report indicates that mule deer are more adaptable and are known to utilize culverts, bridges, and overpass structures.<sup>15</sup>

The ITD Research Report, “Safety Solutions for Wildlife-Vehicle Collisions on Idaho’s US 20 and SH 87” (Solutions Report) identified the section of US 20 from Ashton Bridge through Big Bend Ridge and Sheep Falls Flats, from US 20 MP 364.4 – 376 as “...an extremely important area for wildlife migrating out of the Caldera and Yellowstone and Grand Teton National Parks in the fall to spend the winter in the lower elevations, and their return in the spring to the higher elevations for summer.”<sup>16</sup> The Solutions Report specifically recommends the design and construction of six new wildlife structures in this segment of road as well as a retrofit of the Ashton Bridge over the Henry’s Fork and the installation of wildlife exclusion fencing from MP 364.8 to MP 373.5.

In particular, the Solutions Report recommends the construction of a wildlife bridge underpass or overpass somewhere between MP 364.8 and MP 365.5. The Level III Screening Alternatives for multi-use crossing structures miss this recommendation entirely, and it is absent from the proposed multi-use crossing structures in the Level III Screening Alternatives.

The Solutions Report also recommends the construction of a wildlife underpass culvert or bridge at MP 366.5. The Level III Screening Alternatives for multi-use crossing structures seems to adopt this recommendation in the Level III Screening Alternatives proposal for a multi-use crossing at Sheep Falls Road at MP 366.9, which is 0.4 miles away from the Solutions Report recommendation. The Level III Screening Alternatives proposal for a multi-use crossing at Sheep Falls Road at MP 366.9 fails to contain any specific information about the crossing structure itself, including but not limited to general design details, use specifications (including seasonal closure information), design specifications (including width, fence/berm height, soil depth, etc.), type of construction (span, arch, etc.), design details (crossing structure, habitat management, etc.), maintenance, and species-specific research to support the efficacy of the proposed crossing for the target species as identified by ITD.

The Solutions Report provides guidance with respect to this structure, noting that it should be a wildlife underpass culvert or bridge that is at least 15 feet high by at least 20 feet wide.<sup>17</sup> if selected to be a

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<sup>13</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>14</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>15</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>16</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>17</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

wildlife underpass culvert, or if this structure is intended to accommodate elk, then this structure should be a bridge.

### **Multi-Use Crossing Location #2: Ashton Hill Summit**

The second proposed multi-use crossing occurs at MP 367.75. This crossing is intended to accommodate recreationists in the form of pedestrians, cyclists, ATVs, and/or snowmobiles. At the same time, this crossing is also aimed at providing movement and migration opportunities for wildlife like mule deer, elk, and moose.

According to FHWA, multi-use crossings are not effective crossing structures for wildlife like moose. According to the Handbook, Moose prefer “large, open structures with good visibility and vertical clearance in areas with little human disturbance” and regular human use of multi-use crossing structures would deter moose use of the structure.<sup>18</sup> Consequently, the multi-use crossing structure proposed for Ashton Hill Summit immediately fails to provide movement and migration opportunities for the moose species it intends to serve. While mule deer and elk may still attempt to utilize this crossing, it is likely that recreation and human activity will impact their ability to fully utilize this crossing effectively.

The Methodology Report suggests that elk are one of the wariest ungulate species in the west and a very difficult species to convince to utilize crossing structures near roads.<sup>19</sup> The Methodology Report notes that entire herds do not regularly use culverts, so culverts are not a viable crossing structure option. Both underpasses and overpasses have shown some success, but overpasses are potentially unattractive to cow elk.<sup>20</sup> The Methodology indicates that mule deer are more adaptable and are known to utilize culverts, bridges, and overpass structures.<sup>21</sup>

This proposed crossing is still within the critical section of US 20 from Ashton Bridge through Big Bend Ridge and Sheep Falls Flats, from US 20 MP 364.4 – 376, characterized as “...an extremely important area for wildlife migrating out of the Caldera and Yellowstone and Grand Teton National Parks in the fall to spend the winter in the lower elevations, and their return in the spring to the higher elevations for summer.”<sup>22</sup> Again, the Solutions Report specifically recommends six new structures in this segment of road as well as a retrofit of the Ashton Bridge over the Henry’s Fork and the installation of wildlife exclusion fencing from MP 364.8 to MP 373.5.

Specifically, the Solutions Report recommends the construction of a wildlife overpass at MP 367.4 or MP 368. The Level III Screening Alternatives for multi-use crossing structures seem to adopt this recommendation in the Level III Screening Alternatives proposal for a multi-use crossing at Ashton Hill Summit at MP 367.75, which is in the middle of the range created between the two crossing structures recommended in the Solutions Report. The Level III Screening Alternatives proposal for a multi-use crossing at Ashton Hill Summit at MP 367.75 fails to contain any specific information about the crossing structure itself, including but not limited to general design details, use specifications (including seasonal closure information), design specifications (including width, fence/berm height, soil depth, etc.), type of

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<sup>18</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>19</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>20</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>21</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>22</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.



construction (span, arch, etc.), design details (crossing structure, habitat management, etc.), maintenance, and species-specific research to support the efficacy of the proposed crossing for the target species as identified by ITD.

The Solutions Report provides guidance with respect to this structure, concluding that, “An overpass would be a logical and possibly the only wildlife mitigation solution that would work in this area.”<sup>23</sup> The Solutions Report additionally recommends a wildlife overpass structure at MP 369.9 to accommodate mule deer and elk that migrate from the east to west of US 20 and back again, wildlife that are known to cross the Henrys Fork River at Sheep Falls directly east of this location. This area was even selected and documented as an important area for an overpass by IDFG on a 2016 field trip.<sup>24</sup> However, the Level III Screening Alternatives for multi-use crossing structures miss this recommendation entirely, and it is absent from the proposed multi-use crossing structures in the Level III Screening Alternatives.

Two additional structures are recommended by the Solutions Report for this section and are similarly absent from the proposed multi-use crossing structures in the Level III Screening Alternatives. First, the Solutions Report recommends a wildlife overpass with concurrent fencing at MP 372.2, which would, “...be the best logical solution for encouraging elk movement across the highway, and it is in an area where an overpass may be less expensive than an underpass because the landscape is even with the highway and an underpass would require excavation of soil, which could be more costly than placing soil at this site.”<sup>25</sup> Second, the Solutions Report recommends another overpass with fencing at MP 373.3 meant to accommodate elk and moose documented to move through this area.<sup>26</sup> Although not reflected in ITD’s target species for this crossing, the Interagency Grizzly Bear Study Team (IGBST) data documents grizzly bear crossing movements over US 20 near this location.<sup>27</sup> This overpass structure should also facilitate movement and migration for these documented grizzly bear, in addition to the elk and moose.

### **Multi-Use Crossing Location #3: Harriman South**

The third proposed multi-use crossing is Harriman South, which occurs at MP 378.61. This crossing is intended to accommodate recreationists in the form of pedestrians, cyclists, ATVs, and/or snowmobiles. At the same time, this crossing is also aimed at providing movement and migration opportunities for wildlife like mule deer, elk, moose, and grizzly bear.

According to FHWA, multi-use crossings are not effective crossing structures for wildlife like moose and grizzly bear. According to the Handbook, Moose prefer “large, open structures with good visibility and vertical clearance in areas with little human disturbance” and regular human use of multi-use crossing structures would deter moose use of the structure.<sup>28</sup> Similarly, the Handbook states that grizzly bear require large structures and/or “preference for areas in close proximity to humans.”<sup>29</sup> Consequently, the multi-use crossing structure proposed for Harriman South immediately fails to provide movement and migration opportunities for the moose and grizzly bear species it intends to serve. While mule deer and

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<sup>23</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>24</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>25</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>26</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>27</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>28</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>29</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

elk may still attempt to utilize this crossing, it is likely that recreation and human activity will impact their ability to fully utilize this crossing effectively.

The Methodology Report suggests that elk are one of the wariest ungulate species in the west and a very difficult species to convince to utilize crossing structures near roads.<sup>30</sup> The Methodology Report notes that entire herds do not regularly use culverts, so culverts are not a viable crossing structure option. Both underpasses and overpasses have shown some success, but overpasses are potentially unattractive to cow elk.<sup>31</sup> The Methodology indicates that mule deer are more adaptable and are known to utilize culverts, bridges, and overpass structures.<sup>32</sup>

This proposed crossing is in the section of US 20 from Osborne Bridge to Harriman State Park, from US 20 MP 376.5 – MP 381, and noted by the Solutions Report as “...extremely important for elk, resident moose, and migratory moose.”<sup>33</sup> IGBST data also demonstrated high intensity bear crossings on US 20 near the intersection of the Byway in this reach.<sup>34</sup> In this portion of the US 20 corridor, the Solutions Report recommends the construction of one wildlife overpass or underpass, replacing the Osborne Bridge, the construction of one wildlife overpass to accommodate all species of animals, and the installation of wildlife exclusion fencing throughout this reach with “very specific unique placement.”<sup>35</sup>

Specifically, the Solutions Report recommends constructing a wildlife overpass or underpass at MP 377.5.<sup>36</sup> The Level III Screening Alternatives for multi-use crossing structures seem to adopt this recommendation in the Level III Screening Alternatives proposal for a multi-use crossing at Harriman South at MP 378.61, which is a little more than one mile away from the recommendation in the Solutions Report. The Level III Screening Alternatives proposal for a multi-use crossing at Harriman South fails to contain any specific information about the crossing structure itself, including but not limited to general design details, use specifications (including seasonal closure information), design specifications (including width, fence/berm height, soil depth, etc.), type of construction (span, arch, etc.), design details (crossing structure, habitat management, etc.), maintenance, and species-specific research to support the efficacy of the proposed crossing for the target species as identified by ITD.

The Solutions Report provides guidance with respect to this structure, noting that it must be combined with wildlife exclusion fencing tailored to the unique needs of the trails, residences, and roads in this area.<sup>37</sup> Furthermore, if this structure is intended to serve the movement and migration needs of elk, then it must be a large underpass bridge or overpass. The Solutions Report additionally recommends replacing the Osborne Bridge. The Level III Screening Alternatives for multi-use crossing structures miss this recommendation entirely, and it is absent from the proposed multi-use crossing structures in the Level III Screening Alternatives.

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<sup>30</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>31</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>32</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>33</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>34</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>35</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>36</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>37</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

#### Multi-Use Crossing Location #4: Harriman North

The fourth proposed multi-use crossing is Harriman North, which occurs at MP 380.55. This crossing is intended to accommodate recreationists in the form of pedestrians, cyclists, ATVs, and/or snowmobiles. At the same time, this crossing is also aimed at providing movement/migration opportunities for wildlife like mule deer, elk, moose, and grizzly bear.

According to FHWA, multi-use crossings are not effective crossing structures for wildlife like moose and grizzly bear. According to the Handbook, moose prefer “large, open structures with good visibility and vertical clearance in areas with little human disturbance” and regular human use of multi-use crossing structures would deter moose use of the structure.<sup>38</sup> Similarly, the Handbook states that grizzly bear require large structures and/or “preference for areas in close proximity to humans.”<sup>39</sup> Consequently, the multi-use crossing structure proposed for Harriman South immediately fails to provide movement and migration opportunities for the moose and grizzly bear species it intends to serve. While mule deer and elk may still attempt to utilize this crossing, it is likely that recreation and human activity will impact their ability to fully utilize this crossing effectively.

The Methodology Report suggests that elk are one of the wariest ungulate species in the west and a very difficult species to convince to utilize crossing structures near roads.<sup>40</sup> The Methodology Report notes that entire herds do not regularly use culverts, so culverts are not a viable crossing structure option. Both underpasses and overpasses have shown some success, but overpasses are potentially unattractive to cow elk.<sup>41</sup> The Methodology Report further indicates that mule deer are more adaptable and are known to utilize culverts, bridges, and overpass structures.<sup>42</sup>

This proposed crossing is also in the same section US 20 as Harriman North, from Osborne Bridge to Harriman State Park, from US 20 MP 376.5 – MP 381, and noted by the Solutions Report as “...extremely important for elk, resident moose, and migratory moose.”<sup>43</sup> IGBST data also demonstrated high intensity bear crossings on US 20 near the intersection of the Byway in this reach.<sup>44</sup> The Solutions Report further indicates that, “It is a critical priority that a wildlife crossing structure be placed in this area also because US 20 MP 381 is the highest ranked WVC priority area in the ITD District 6, according to the Idaho WVC study by Cramer et al. (2014).”<sup>45</sup> In this portion of the US 20 corridor, the Solutions Report recommends the construction of one wildlife overpass or underpass, replacing the Osborne Bridge, the construction of one wildlife overpass to accommodate all species of animals, and the installation of wildlife exclusion fencing throughout this reach with “very specific unique placement.”<sup>46</sup>

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<sup>38</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>39</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>40</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>41</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>42</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>43</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>44</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>45</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>46</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

Specifically, the report recommends constructing a wildlife overpass between MP 380.2 and MP 380, which appears to be the recommendation reflected in the proposed multi-use crossing at Harriman North at MP 380.55. The Level III Screening Alternatives proposal for a multi-use crossing at Harriman North fails to contain any specific information about the crossing structure itself, including but not limited to general design details, use specifications (including seasonal closure information), design specifications (including width, fence/berm height, soil depth, etc.), type of construction (span, arch, etc.), design details (crossing structure, habitat management, etc.), maintenance, and species-specific research to support the efficacy of the proposed crossing for the target species as identified by ITD.

The Solutions Report provides guidance with respect to this structure, indicating that should extend from approximately MP 378. through MP 382, and also northward into the next highway segment.<sup>47</sup> Moreover, two electric pavement pads need to be installed at the junction of US 20 and the ATV trail to prevent wildlife from entering the right-of-way.<sup>48</sup>

### **Multi-Use Crossing Location #5: Island Park RS/Homestead Drive**

The fifth proposed multi-use crossing is Island Park RS/Homestead Drive, which occurs at MP 386.46. This crossing is intended to accommodate recreationists in the form of pedestrians, cyclists, ATVs, and/or snowmobiles. At the same time, this crossing is also aimed at providing movement and migration opportunities for wildlife, specifically elk, moose, and grizzly bear.

According to FHWA, multi-use crossings are not effective crossing structures for wildlife like moose and grizzly bear. According to the Handbook, Moose prefer “large, open structures with good visibility and vertical clearance in areas with little human disturbance” and regular human use of multi-use crossing structures would deter moose use of the structure.<sup>49</sup> Similarly, the Handbook states that grizzly bear require large structures and/or “preference for areas in close proximity to humans.”<sup>50</sup> Consequently, the multi-use crossing structure proposed for Harriman South immediately fails to provide movement and migration opportunities for the moose and grizzly bear species it intends to serve. While elk may still attempt to utilize this crossing, it is likely that recreation and human activity will impact their ability to fully utilize this crossing effectively.

The Methodology Report suggests that elk are one of the wariest ungulate species in the west and a very difficult species to convince to utilize crossing structures near roads.<sup>51</sup> The Methodology Report notes that entire herds do not regularly use culverts, so culverts are not a viable crossing structure option. Both underpasses and overpasses have shown some success, but overpasses are potentially unattractive to cow elk.<sup>52</sup>

This proposed crossing is located in the section US 20 from Island Park to the Buffalo River, from MP 386 to MP 390, which is characterized by the Solutions Report as an area with a high likelihood of use by non-migratory moose and elk.<sup>53</sup> IGBST data also indicates heavy use of this section by grizzly bear

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<sup>47</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>48</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>49</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>50</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>51</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>52</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>53</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.”

through MP 390. In this portion of the US 20 corridor, the Solutions Report recommends the construction of two wildlife crossing structures. However, there is no specific recommendation in the Solutions Report for a wildlife crossing of any kind at MP 386.46.

#### **Multi-Use Crossing Location #6: Buffalo River Bridge**

The sixth proposed multi-use crossing is Buffalo River Bridge, which occurs at MP 387. This crossing is intended to accommodate recreationists in the form of pedestrians, cyclists, ATVs, and/or snowmobiles. At the same time, this crossing is also aimed at providing movement and migration opportunities for wildlife like elk, moose, and grizzly bear.

According to FHWA, multi-use crossings are not effective crossing structures for wildlife like moose and grizzly bear. According to the Handbook, Moose prefer “large, open structures with good visibility and vertical clearance in areas with little human disturbance” and regular human use of multi-use crossing structures would deter moose use of the structure.<sup>54</sup> Similarly, the Handbook states that grizzly bear require large structures and/or “preference for areas in close proximity to humans.”<sup>55</sup> Consequently, the multi-use crossing structure proposed for Harriman South immediately fails to provide movement and migration opportunities for the moose and grizzly bear species it intends to serve. While elk may still attempt to utilize this crossing, it is likely that recreation and human activity will impact their ability to fully utilize this crossing effectively.

The Methodology Report suggests that elk are one of the wariest ungulate species in the west and a very difficult species to convince to utilize crossing structures near roads.<sup>56</sup> The Methodology Report notes that entire herds do not regularly use culverts, so culverts are not a viable crossing structure option. Both underpasses and overpasses have shown some success, but overpasses are potentially unattractive to cow elk.<sup>57</sup>

This proposed crossing is located in the section US 20 from Island Park to the Buffalo River, from MP 386 to MP 390, which is characterized by the Solutions Report as an area with a high likelihood of use by non-migratory moose and elk.<sup>58</sup> IGBST data also indicates heavy use of this section by grizzly bear through MP 390. In this portion of the US 20 corridor, the Solutions Report recommends the construction of two wildlife crossing structures.

Specifically, the Solutions Report identifies the Buffalo River Bridge as a “defacto wildlife crossing structure.”<sup>59</sup> The Level III Screening Alternatives for multi-use crossing structures directly to adopt this recommendation in the Level III Screening Alternatives proposal for a multi-use crossing at Buffalo River Bridge at MP 387. The Level III Screening Alternatives proposal for a multi-use crossing at Buffalo River Bridge fails to contain any specific information about the crossing structure itself, including but not limited to general design details, use specifications (including seasonal closure information), design specifications (including width, fence/berm height, soil depth, etc.), type of construction (span, arch,

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Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>54</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>55</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>56</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>57</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>58</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>59</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

etc.), design details (crossing structure, habitat management, etc.), maintenance, and species-specific research to support the efficacy of the proposed crossing for the target species as identified by ITD.

The Solutions Report provides guidance with respect to this structure, noting that an achievable and effective retrofit would be to place wildlife exclusion fencing north and south of the bridge for one-half mile in each direction of the road, totaling more than one mile due to the custom modifications needed for existing buildings.<sup>60</sup> Fencing behind the buildings and parking lots is also necessary to keep wildlife from accessing the roadway.<sup>61</sup>

Please note that recreation pressure at the Buffalo River Bridge is already high and will continue to rise in the coming years given the current and explosive population growth in the West. Many recreationists, including swimmers, utilize this bridge to access the water, and any exclusionary wildlife fencing would require gates near the road pull off areas to permit recreation access, particularly for swimmers. Due to the already high and ever increasing levels of recreation at this location, combined with the residential and commercial developments located near the bridge, the Buffalo River Bridge's value for facilitating wildlife movement and migration in and around the US 20 corridor is already low and will likely continue to decrease in efficacy over time. For species like grizzly bear, this location is likely not an effective mitigation measure to integrate wildlife movement strategies in the corridor.

#### **Multi-Use Crossing Location #7: Ponds Lodge/Island Park Road**

The seventh proposed multi-use crossing is Ponds Lodge/Island Park Road, which occurs at MP 387.4. This crossing is intended to accommodate recreationists in the form of pedestrians, cyclists, ATVs, and/or snowmobiles. This crossing is also aimed at providing movement and migration opportunities for wildlife like elk, moose, and grizzly bear.

According to FHWA, multi-use crossings are not effective crossing structures for wildlife like moose and grizzly bear. According to the Handbook, Moose prefer "large, open structures with good visibility and vertical clearance in areas with little human disturbance" and regular human use of multi-use crossing structures would deter moose use of the structure.<sup>62</sup> Similarly, the Handbook states that grizzly bear require large structures and/or "preference for areas in close proximity to humans."<sup>63</sup> Consequently, the multi-use crossing structure proposed for Harriman South immediately fails to provide movement and migration opportunities for the moose and grizzly bear species it intends to serve. While elk may still attempt to utilize this crossing, it is likely that recreation and human activity will impact their ability to fully utilize this crossing effectively.

The Methodology Report suggests that elk are one of the wariest ungulate species in the west and a very difficult species to convince to utilize crossing structures near roads.<sup>64</sup> The Methodology Report notes that entire herds do not regularly use culverts, so culverts are not a viable crossing structure

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<sup>60</sup> Cramer, P.C., et al. "Safety solutions for wildlife-vehicle collisions on Idaho's US 20 and SH 87." Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>61</sup> Cramer, P.C., et al. "Safety solutions for wildlife-vehicle collisions on Idaho's US 20 and SH 87." Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>62</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>63</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>64</sup> Cramer, P.C., et al. "Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways." Idaho Transportation Department Research Report, Boise, Idaho, 2014.

option. Both underpasses and overpasses have shown some success, but overpasses are potentially unattractive to cow elk.<sup>65</sup>

This proposed crossing is located in the section US 20 from Island Park to the Buffalo River, from MP 386 to MP 390, which is characterized by the Solutions Report as an area with a high likelihood of use by non-migratory moose and elk.<sup>66</sup> IGBST data also indicates heavy use of this section by grizzly bear through MP 390. In this portion of the US 20 corridor, the Solutions Report recommends the construction of two wildlife crossing structures.

Specifically, the Solutions Report recommends a wildlife overpass or underpass at MP 388, which appears to be the recommendation reflected in the proposed multi-use crossing at Ponds Lodge/Island Park Road at MP 387.4. The Level III Screening Alternatives for multi-use crossing structures appears to adopt this recommendation in the Level III Screening Alternatives proposal for a multi-use crossing at Ponds Lodge/Island Park Road at MP 387. The Level III Screening Alternatives proposal for a multi-use crossing at Ponds Lodge/Island Park Road fails to contain any specific information about the crossing structure itself, including but not limited to general design details, use specifications (including seasonal closure information), design specifications (including width, fence/berm height, soil depth, etc.), type of construction (span, arch, etc.), design details (crossing structure, habitat management, etc.), maintenance, and species-specific research to support the efficacy of the proposed crossing for the target species as identified by ITD.

The Solutions Report provides guidance with respect to this structure, indicating that this crossing would require fencing from the Buffalo River Bridge north to MP 392.3 in combination with an additional wildlife crossing opportunity along these 5 miles.<sup>67</sup>

#### **Multi-Use Crossing Location #8: Elk Creek Station**

The eighth proposed multi-use crossing is Elk Creek Station, which occurs at MP 389.2. This crossing is intended to accommodate recreationists in the form of pedestrians, cyclists, ATVs, and/or snowmobiles. This crossing is also aimed at providing movement/migration opportunities for wildlife like elk, moose, and grizzly bear.

According to FHWA, multi-use crossings are not effective crossing structures for wildlife like moose and grizzly bear. According to the Handbook, Moose prefer “large, open structures with good visibility and vertical clearance in areas with little human disturbance” and regular human use of multi-use crossing structures would deter moose use of the structure.<sup>68</sup> Similarly, the Handbook states that grizzly bear require large structures and/or “preference for areas in close proximity to humans.”<sup>69</sup> Consequently, the multi-use crossing structure proposed for Harriman South immediately fails to provide movement and migration opportunities for the moose and grizzly bear species it intends to serve. While elk may still attempt to utilize this crossing, it is likely that recreation and human activity will impact their ability to fully utilize this crossing effectively.

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<sup>65</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>66</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>67</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>68</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>69</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

The Methodology Report suggests that elk are one of the wariest ungulate species in the west and a very difficult species to convince to utilize crossing structures near roads.<sup>70</sup> The Methodology Report notes that entire herds do not regularly use culverts, so culverts are not a viable crossing structure option. Both underpasses and overpasses have shown some success, but overpasses are potentially unattractive to cow elk.<sup>71</sup>

This proposed crossing is located in the section US 20 from Island Park to the Buffalo River, from MP 386 to MP 390, which is characterized by the Solutions Report as an area with a high likelihood of use by non-migratory moose and elk.<sup>72</sup> IGBST data also indicates heavy use of this section by grizzly bear through MP 390. In this portion of the US 20 corridor, the Solutions Report recommends the construction of two wildlife crossing structures.

Specifically, the Solutions Report calls out a wildlife overpass between MP 389.9 and 391.8, which appears to be the recommendation reflected in the proposed multi-use crossing at Elk Creek Station at MP 389.2.<sup>73</sup> The Level III Screening Alternatives for multi-use crossing structures appears to adopt this recommendation in the Level III Screening Alternatives proposal for a multi-use crossing at Elk Creek Station at MP 387. The Level III Screening Alternatives proposal for a multi-use crossing at Elk Creek Station fails to contain any specific information about the crossing structure itself, including but not limited to general design details, use specifications (including seasonal closure information), design specifications (including width, fence/berm height, soil depth, etc.), type of construction (span, arch, etc.), design details (crossing structure, habitat management, etc.), maintenance, and species-specific research to support the efficacy of the proposed crossing for the target species as identified by ITD.

The Solutions Report specifically recommends crossing structure sites at MP 391.5, where there is a rock outcrop that could accommodate a wildlife overpass, or MP 390.7, where it may be possible to place a wildlife underpass bridge. Furthermore, exclusion fencing for wildlife would begin at MP 387.4 and would run for approximately five miles to MP 392.3.<sup>74</sup>

### **Multi-Use Crossing Location #9: Macks Inn South**

The ninth proposed multi-use crossing is Macks Inn South, which occurs at MP 392.69. This crossing is intended to accommodate recreationists in the form of pedestrians, cyclists, ATVs, and/or snowmobiles. This crossing is also aimed at providing movement and migration opportunities for wildlife like mule deer, elk, and moose.

According to FHWA, multi-use crossings are not effective crossing structures for wildlife like moose. According to the Handbook, Moose prefer “large, open structures with good visibility and vertical clearance in areas with little human disturbance” and regular human use of multi-use crossing structures would deter moose use of the structure.<sup>75</sup> Consequently, the multi-use crossing structure proposed for Macks Inn South immediately fails to provide movement and migration opportunities for

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<sup>70</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>71</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>72</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>73</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>74</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>75</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.



the moose it intends to serve. While mule-deer and elk may still attempt to utilize this crossing, it is likely that recreation and human activity will impact their ability to fully utilize this crossing effectively.

The Methodology Report suggests that elk are one of the wariest ungulate species in the west and a very difficult species to convince to utilize crossing structures near roads.<sup>76</sup> The Methodology Report notes that entire herds do not regularly use culverts, so culverts are not a viable crossing structure option. Both underpasses and overpasses have shown some success, but overpasses are potentially unattractive to cow elk.<sup>77</sup>

The Solutions Report identifies the section of US 20 from Macks Inn to Henrys Lake Flat, from US 20 MP 392 – MP 399, as an area that has a high probability of utilization by elk, non-migratory moose, and migratory moose. IGBST data also shows utilization of this area and northward into the Henrys Lake Flat area by grizzly bear. In this portion of the US 20 corridor, the Solutions Report recommends the construction a new underpass, a new overpass, and the eventual replacement of two existing bridges.<sup>78</sup>

Specifically, the Solutions Report calls out replacing the Henrys Fork Bridge at MP 392.7, which appears to be the recommendation reflected in Macks Inn South, which occurs at MP 392.69. The Level III Screening Alternatives for multi-use crossing structures appear to adopt this recommendation in the proposal for a multi-use crossing at Macks Inn South at MP 392.69. However, the Level III Screening Alternatives proposal for a multi-use crossing at Macks Inn South fails to contain any specific information about the crossing structure itself, including but not limited to general design details, use specifications (including seasonal closure information), design specifications (including width, fence/berm height, soil depth, etc.), type of construction (span, arch, etc.), design details (crossing structure, habitat management, etc.), maintenance, and species-specific research to support the efficacy of the proposed crossing for the target species as identified by ITD.

The Solutions Report specifically notes that little can be done to address the bridge height or the intense human development around the bridge in the short-term. The Solutions Report recommends a replacement bridge that would be 10 to 13 feet or more higher to facilitate the movement of moose and other wildlife as well as accommodate recreationists. More study is needed here to examine the recreation and development impacts on the mule deer, elk, and moose who utilize this portion of the US 20 corridor to determine how ungulates and potentially grizzly bear are impacted by human presence and use and develop recommendations for how best to ensure their movement and migration.

#### **Multi-Use Crossing Location #10: Library Road**

The tenth proposed multi-use crossing is Library Road, which occurs at MP 394.15. This crossing is intended to accommodate recreationists in the form of pedestrians, cyclists, ATVs, and/or snowmobiles. This crossing is also aimed at providing movement/migration opportunities for wildlife like mule deer, elk, and moose.

According to FHWA, multi-use crossings are not effective crossing structures for wildlife like moose. According to the Handbook, Moose prefer “large, open structures with good visibility and vertical clearance in areas with little human disturbance” and regular human use of multi-use crossing

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<sup>76</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>77</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>78</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

structures would deter moose use of the structure.<sup>79</sup> Consequently, the multi-use crossing structure proposed for Library Road immediately fails to provide movement and migration opportunities for the moose it intends to serve. While mule-deer and elk may still attempt to utilize this crossing, it is likely that recreation and human activity will impact their ability to fully utilize this crossing effectively.

The Methodology Report suggests that elk are one of the wariest ungulate species in the west and a very difficult species to convince to utilize crossing structures near roads.<sup>80</sup> The Methodology Report notes that entire herds do not regularly use culverts, so culverts are not a viable crossing structure option. Both underpasses and overpasses have shown some success, but overpasses are potentially unattractive to cow elk.<sup>81</sup>

The Solutions Report identifies the section of US 20 from Macks Inn to Henrys Lake Flat, from US 20 MP 392 – MP 399, as an area that has a high probability of utilization by elk, non-migratory moose, and migratory moose. IGBST data also shows utilization of this area and northward into the Henrys Lake Flat area by grizzly bear. In this portion of the US 20 corridor, the Solutions Report recommends the construction of a new underpass, a new overpass, and the eventual replacement of two existing bridges.<sup>82</sup>

Specifically, the Solutions Report calls out the construction of a wildlife underpass at MP 393.8.<sup>83</sup> The Level III Screening Alternatives for multi-use crossing structures appears to adopt this recommendation in the Level III Screening Alternatives proposal for a multi-use crossing at Library Road at MP 394.15. The Level III Screening Alternatives proposal for a multi-use crossing at Library Road fails to contain any specific information about the crossing structure itself, including but not limited to general design details, use specifications (including seasonal closure information), design specifications (including width, fence/berm height, soil depth, etc.), type of construction (span, arch, etc.), design details (crossing structure, habitat management, etc.), maintenance, and species-specific research to support the efficacy of the proposed crossing for the target species as identified by ITD.

The Solutions Report specifically recommends the collection of more crash data to inform mitigation options at this location. If this multi-use crossing is intended to facilitate elk movement and migration, then the Solutions Report recommends the construction of a bridge with fencing from MP 393.3 to 394.3.<sup>84</sup>

### **Multi-Use Crossing Location #11: Island Park Village**

The eleventh proposed multi-use crossing is Island Park Village, which occurs at MP 394.55. This crossing is intended to accommodate recreationists in the form of pedestrians, cyclists, ATVs, and/or snowmobiles. This crossing is also aimed at providing movement and migration opportunities for wildlife like mule deer, elk, and moose.

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<sup>79</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>80</sup> Cramer, P.C., et al. "Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways." Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>81</sup> Cramer, P.C., et al. "Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways." Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>82</sup> Cramer, P.C., et al. "Safety solutions for wildlife-vehicle collisions on Idaho's US 20 and SH 87." Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>83</sup> Cramer, P.C., et al. "Safety solutions for wildlife-vehicle collisions on Idaho's US 20 and SH 87." Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>84</sup> Cramer, P.C., et al. "Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways." Idaho Transportation Department Research Report, Boise, Idaho, 2014.

According to FHWA, multi-use crossings are not effective crossing structures for wildlife like moose. According to the Handbook, Moose prefer “large, open structures with good visibility and vertical clearance in areas with little human disturbance” and regular human use of multi-use crossing structures would deter moose use of the structure.<sup>85</sup> Consequently, the multi-use crossing structure proposed for Library Road immediately fails to provide movement and migration opportunities for the moose it intends to serve. While mule-deer and elk may still attempt to utilize this crossing, it is likely that recreation and human activity will impact their ability to fully utilize this crossing effectively.

The Methodology Report suggests that elk are one of the wariest ungulate species in the west and a very difficult species to convince to utilize crossing structures near roads.<sup>86</sup> The Methodology Report notes that entire herds do not regularly use culverts, so culverts are not a viable crossing structure option. Both underpasses and overpasses have shown some success, but overpasses are potentially unattractive to cow elk.<sup>87</sup>

The Solutions Report identifies the section of US 20 from Macks Inn to Henrys Lake Flat, from US 20 MP 392 – MP 399, as an area that has a high probability of utilization by elk, non-migratory moose, and migratory moose. IGBST data also shows utilization of this area and northward into the Henrys Lake Flat area by grizzly bears. In this portion of the US 20 corridor, the Solutions Report recommends the construction of a new underpass, a new overpass, and the eventual replacement of two existing bridges.<sup>88</sup>

The Solutions Report specifically recommends a wildlife overpass at MP 394.6.<sup>89</sup> The Solutions Report does speak to multiple uses here, as this overpass could also serve as a snowmobile overpass in the winter. However, as the Solutions Report explicitly notes, these would be the only motorized machines and time of year this structure could be used by motorized vehicles.<sup>90</sup> This overpass would also require fencing one-half mile in each direction from the structure as well as electric pavement treatments for two potential roads and two potential driveways.<sup>91</sup>

### **Multi-Use Crossing Location #12: Meadow Creek Road**

The twelfth proposed multi-use crossing is Meadow Creek Road, which occurs at MP 399.04. This crossing is intended to accommodate recreationists in the form of pedestrians, cyclists, ATVs, and/or snowmobiles. This crossing is also aimed at providing movement/migration opportunities for wildlife, specifically moose, grizzly bear, and pronghorn.

According to FHWA, multi-use crossings are not effective crossing structures for wildlife like moose and grizzly bear. According to the Handbook, Moose prefer “large, open structures with good visibility and vertical clearance in areas with little human disturbance” and regular human use of multi-use crossing

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<sup>85</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>86</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>87</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>88</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>89</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>90</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>91</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

structures would deter moose use of the structure.<sup>92</sup> Pronghorn, like moose, “tend to prefer large, open structures in areas with little human activity.”<sup>93</sup> Similarly, the Handbook states that grizzly bear require large structures and/or “preference for areas in close proximity to humans.”<sup>94</sup> Consequently, the multi-use crossing structure proposed for Harriman South immediately fails to provide movement and migration opportunities for the moose and grizzly bear species it intends to serve.

The Solutions Report identifies the section of US 20 from Macks Inn to Henrys Lake Flat, from US 20 MP 392 – MP 399, as an area that has a high probability of utilization by elk, non-migratory moose, and migratory moose. IGBST data also shows utilization of this area and northward into the Henrys Lake Flat area by grizzly bears. In this portion of the US 20 corridor, the Solutions Report recommends the construction of a new underpass, a new overpass, and the eventual replacement of two existing bridges.<sup>95</sup>

Specifically, the Solutions Report recommends the construction of a wildlife underpass at MP 398 or Henrys Lake Outlet Bridge replacement at MP 398.7, which appears to be the recommendation reflected in the proposed multi-use crossing at Meadow Creek Road at MP 399.04. The Level III Screening Alternatives for multi-use crossing structures seem to adopt this recommendation in the Level III Screening Alternatives proposal for a multi-use crossing at Meadow Creek Road at MP 399.04, which is in the middle of the range created between the two crossing structures recommended in the Solutions Report. The Level III Screening Alternatives proposal for a multi-use crossing at Meadow Creek Road at MP 399.04 fails to contain any specific information about the crossing structure itself, including but not limited to general design details, use specifications (including seasonal closure information), design specifications (including width, fence/berm height, soil depth, etc.), type of construction (span, arch, etc.), design details (crossing structure, habitat management, etc.), maintenance, and species-specific research to support the efficacy of the proposed crossing for the target species as identified by ITD.

The Solutions Report provides guidance with respect to this structure, indicating that the bridge should be replaced with a higher and longer span bridge that would cover the 100-year flood plain and be at least 10 feet high to accommodate moose and elk. Wildlife exclusion fencing would also complement the bridge replacement and need to reach for one-half mile in each direction, except for the Henrys Lake Flat area, where wildlife movement is necessary and should not be impeded by fencing.

### **Multi-Use Crossing Location #13: Valley View**

The thirteenth proposed multi-use crossing is Valley View, which occurs at MP 401.55. This crossing is intended to accommodate recreationists in the form of pedestrians, cyclists, ATVs, and/or snowmobiles. This crossing is also aimed at providing movement/migration opportunities for wildlife like moose, grizzly bear, and pronghorn.

According to FHWA, multi-use crossings are not effective crossing structures for wildlife like moose and grizzly bear. According to the Handbook, Moose prefer “large, open structures with good visibility and vertical clearance in areas with little human disturbance” and regular human use of multi-use crossing

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<sup>92</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>93</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>94</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>95</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

structures would deter moose use of the structure.<sup>96</sup> Pronghorn, like moose, “tend to prefer large, open structures in areas with little human activity.”<sup>97</sup> Similarly, the Handbook states that grizzly bear require large structures and/or “preference for areas in close proximity to humans.”<sup>98</sup> Consequently, the multi-use crossing structure proposed for Valley View immediately fails to provide movement and migration opportunities for the moose, prong-horn, and grizzly bear species it intends to serve. While pronghorn may still attempt to utilize this crossing, it is likely that recreation and human activity will impact their ability to fully utilize this crossing effectively.

The Solutions Report identifies the section of US 20 from SH 87 Junction to the Montana State Line, from US 20 MP 402 through MP 406, as potentially the most important area of US 20 for integrating wildlife movement and migration solutions in the corridor. The Solutions Report specifically calls out this section as an “...important wildlife movement linkage for daily and seasonal movements of elk, moose, grizzly bear, and wolverine, which places them on the highways with traffic, greatly increasing the risk of WV as compared to other segments.”<sup>99</sup> Furthermore, the Solutions Report classifies this reach as having the greatest wildlife connectivity value on account of it bisecting wildlife movements in and out of Yellowstone National Park as well as the long-ranging regional movements of carnivores like grizzly bear and wolverine. The Solutions report specifically recommends three overpass wildlife crossing structures.<sup>100</sup>

Specifically, the report recommends a wildlife overpass at MP 403.2. The Level III Screening Alternatives for multi-use crossing structures seem to adopt this recommendation in the Level III Screening Alternatives proposal for a multi-use crossing at Valley View at MP 401.55, which is less than two miles from the proposal. The Level III Screening Alternatives proposal for a multi-use crossing at Valley View at MP 401.55 fails to contain any specific information about the crossing structure itself, including but not limited to general design details, use specifications (including seasonal closure information), design specifications (including width, fence/berm height, soil depth, etc.), type of construction (span, arch, etc.), design details (crossing structure, habitat management, etc.), maintenance, and species-specific research to support the efficacy of the proposed crossing for the target species as identified by ITD.

The Solutions Report provides guidance with respect to this structure, indicating that wildlife exclusion fencing would need to be included from around MP 401.8 where animals are known to enter the road area, northward along the entire length of the road to the state border in combination with the construction of additional wildlife overpasses. However, if Valley View is to be the only crossing in this reach, then fencing should only extend from the southern point to one-half mile north of this overpass. Moreover, fencing would be most effective if placed behind all private property on the east side of the corridor and following the CTNF property boundary north and south of the location.<sup>101</sup>

#### **Multi-Use Crossing Location #14: SH87**

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<sup>96</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>97</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>98</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>99</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>100</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>101</sup> Cramer, P.C., et al. “Safety solutions for wildlife-vehicle collisions on Idaho’s US 20 and SH 87.” Idaho Transportation Department Research Report, Boise, Idaho, 2016.

The fourteenth proposed multi-use crossing is SH87, which occurs at MP 402.29. This crossing is intended to accommodate recreationists in the form of pedestrians, cyclists, ATVs, and/or snowmobiles. This crossing is also aimed at providing movement/migration opportunities for wildlife like moose, grizzly bear, and pronghorn.

According to FHWA, multi-use crossings are not effective crossing structures for wildlife like moose and grizzly bear. According to the Handbook, Moose prefer “large, open structures with good visibility and vertical clearance in areas with little human disturbance” and regular human use of multi-use crossing structures would deter moose use of the structure.<sup>102</sup> Pronghorn, like moose, “tend to prefer large, open structures in areas with little human activity.”<sup>103</sup> Similarly, the Handbook states that grizzly bear require large structures and/or “preference for areas in close proximity to humans.”<sup>104</sup> Consequently, the multi-use crossing structure proposed for Valley View immediately fails to provide movement and migration opportunities for the moose, prong-horn, and grizzly bear species it intends to serve. While pronghorn may still attempt to utilize this crossing, it is likely that recreation and human activity will impact their ability to fully utilize this crossing effectively.

The Solutions Report identifies the section of US 20 from SH 87 Junction to the Montana State Line, from US 20 MP 402 through MP 406, as potentially the most important area of US 20 for integrating wildlife movement and migration solutions in the corridor. The Solutions Report specifically calls out this section as an “...important wildlife movement linkage for daily and seasonal movements of elk, moose, grizzly bear, and wolverine, which places them on the highways with traffic, greatly increasing the risk of WV as compared to other segments.”<sup>105</sup> Furthermore, the Solutions Report classifies this reach as having the greatest wildlife connectivity value on account of it bisecting wildlife movements in and out of Yellowstone National Park as well as the long-ranging regional movements of carnivores like grizzly bear and wolverine. The Solutions Report recommends three overpass wildlife crossing structures.<sup>106</sup>

Specifically, the Solutions Report recommends a wildlife tunnel overpass at MP 404.9, which appears to be reflected in the proposal for SH87.<sup>107</sup> The Solutions Report recommends the construction of a tunnel as the most ecologically effective method to separate wildlife from the road. If a tunnel cannot be constructed, the Solutions Report indicates that a wildlife overpass is critical for this location.<sup>108</sup> This overpass would need fencing on both sides of the road with a drive entrance electric pavement on the west side, and the Howard Creek Rest Stop, two entrances, on the east side.

The Solutions Report additionally recommends the construction of a wildlife overpass at MP 406. This structure is missing from the proposed alternatives. The Level III Screening Alternatives for multi-use crossing structures miss this recommendation entirely, and it is absent from the proposed multi-use crossing structures in the Level III Screening Alternatives. Alternatives developed for Targhee Pass

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<sup>102</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>103</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>104</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>105</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>106</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>107</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

<sup>108</sup> Cramer, P.C., et al. “Methodology for Prioritizing Appropriate Mitigation Actions to Reduce Wildlife-Vehicle Collisions on Idaho Highways.” Idaho Transportation Department Research Report, Boise, Idaho, 2014.

Project may address reducing wildlife vehicle collisions, but they will not increase wildlife movement/migration across the US 20 corridor at this location.

### **PROPOSED LEVEL III SCREENING ALTERNATIVE RECOMMENDATIONS**

#### **Priority Area #1: Ashton**

The Ashton priority area is populated by several wildlife species, including but not limited to elk, migratory and non-migratory moose, and mule deer.<sup>109</sup> Each of the proposed alternatives for the Ashton priority area would negatively impact, and potentially inhibit, the ability of these elk, migratory and non-migratory moose, and mule deer to move and migrate in and around the US 20 corridor.

According to FHWA's Handbook, road construction and road expansion result in the loss of wildlife habitat by converting existing wildlife habitat areas into developed sections of pavement, dirt track, cleared roadsides, and/or rights-of-way.<sup>110</sup> Road construction and road expansion further negatively impact wildlife by causing habitat fragmentation, a phenomenon that occurs when wildlife become reluctant to move across roadways in order to access mates or habitat for food and cover.<sup>111</sup> The main factors caused road construction and road expansion that result in habitat fragmentation are traffic volume, road width, and/or major habitat alterations.<sup>112</sup>

Wildlife species that have large area needs are most sensitive to road-induced habitat loss.<sup>113</sup> The elk, migratory and non-migratory moose, and mule deer, that utilize the Ashton priority area all have large area needs and will very likely be negatively impacted by road construction, road expansion, habitat loss, and habitat fragmentation in the US 20 corridor.

A "No Build" alternative in the Ashton priority area would be most supportive of wildlife movement/migration in the US 20 corridor. In the Ashton priority area, a "No Build" alternative is not depicted in and missing from the Level III Screening Alternatives. AC1 represents the Level III Screening Alternative with the lowest impact on wildlife movement and migration in and around the US 20 corridor. AC1 generally follows the existing alignment of US 20 with the least amount of road construction and road expansion. However, AC1 is not without any likely impacts to wildlife resources, because it transforms the current US 20 corridor into a four-lane, divided highway.

FHWA's Handbook provides specific guidance with respect to how a four-lane, divided highway would impact elk, migratory and non-migratory moose, and mule deer movement and migration in the Ashton priority area. The Handbook cautions that high-speed and high-volume roadways are typically the biggest barriers to wildlife movement and migration.<sup>114</sup> Furthermore, WVCs and other road-related mortality events combined with barriers to wildlife movement and migration have the biggest impact on wildlife population viability over time.<sup>115</sup> In order to address WVCs, road-related mortality events,

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<sup>109</sup> Cramer, P.C., et al. "Safety solutions for wildlife-vehicle collisions on Idaho's US 20 and SH 87." Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>110</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>111</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>112</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>113</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>114</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>115</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

barriers to wildlife movement and migration, and long-term wildlife population viability, the Handbook instructs that transportation planning agencies have three main options to reduce or eliminate the impacts of road construction and road expansion projects on wildlife: 1) select road alignments that avoid critical wildlife habitat; 2) mitigate affected wildlife populations and habitats; and/or, 3) compensate for the loss of wildlife habitat.<sup>116</sup>

Advancing AC1 as the preferred Level III Screening Alternative would help to reduce the impacts of road construction and road expansion associated with the Project by selecting a road alignment that avoids critical wildlife habitat. In combination with effectively designed and constructed wildlife crossings and properly placed wildlife exclusion fencing, AC1 is the Level III Screening Alternative that best advances the Project goal of integrating wildlife movement in the corridor.

Please note that, even with the advancement of AC1 as the preferred Level III Screening Alternative, significant concerns remain regarding the Project proposals for road construction and road expansion that are located on the Caribou Targhee National Forest (CTNF) administered by the USFS. The “Revised Forest Plan for the Caribou Targhee National Forest” (Forest Plan) contains additional requirements above and beyond the obligations of ITD and IDFG with respect to road construction and road expansion in and around the US 20 corridor. Among these elevated requirements include the Standards and Guidelines for Roads, which include the duty for USFS to: 1) minimize construction of new transportation routes, evaluate existing routes, and reconstruct or relocate those routes not meeting management goals; 2) when highway construction or reconstruction is proposed in wildlife linkage areas, identify potential crossings and consider mitigation; and, 3) design and construct roads to a standard appropriate to their intended use, considering safety, cost, and resource impacts, emphasizing protection of water quality.<sup>117</sup>

The Level III Screening Alternatives under analysis, even AC1, fail to uphold the duties imposed on USFS by the Forest Plan. The Level III Screening Alternatives under analysis, including AC1, all expand the construction of new transportation routes; fail to adequately identify the appropriate potential crossing and mitigation information associated with the US 20 construction and reconstruction; and, design roads that are inappropriate for the use intended on the CTNF and in Island Park.

The Forest Plan also speaks to USFS’s special duties to consider and protect Endangered Species Act (ESA) listed wildlife species like Grizzly bear, Canada lynx, and wolverine as well as terrestrial plant species like Whitebark pine. Guidance documents like the “Northern Rockies Lynx Management Direction” (NRLMD) contain additional requirements regarding the consideration and protection of these species. Among additional requirements include the Guidelines ALL G1, which provides that, “Methods to avoid or reduce effects on lynx should be used when constructing or reconstructing highways or forest highways across federal land.”<sup>118</sup> These methods could include fencing, underpasses, or overpasses.<sup>119</sup>

The Level III Screening Alternatives under analysis, even AC1, also fail to uphold the duties imposed on USFS by the NRLMND. The Level III Screening Alternatives under analysis, including AC1, fail to mention

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<sup>116</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>117</sup> USDA Forest Service, 1997. Revised Forest Plan for the Caribou National Forest. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5229166.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5229166.pdf)

<sup>118</sup> USDA Forest Service, 2007. Northern Rockies Montana, and parts of Idaho, Wyoming, and Utah March 2007 Lynx Management Direction Record of Decision. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd524871.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd524871.pdf)

<sup>119</sup> USDA Forest Service, 2007. Northern Rockies Montana, and parts of Idaho, Wyoming, and Utah March 2007 Lynx Management Direction Record of Decision. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd524871.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd524871.pdf)



Canada lynx entirely, let alone specific methods to avoid or reduce effects on lynx during Project construction or reconstruction on the CTNF.

## Priority Area #2: Pinehaven

The Pinehaven priority area is populated by several wildlife species, including but not limited to elk, migratory and non-migratory moose, swan, geese, black bear, and grizzly bear.<sup>120</sup> Each of the proposed alternatives for the Pinehaven priority area would negatively impact, and potentially inhibit, the ability of these elk, migratory and non-migratory moose, swan, geese, black bear, and grizzly bear to move and migrate in and around the US 20 corridor.

According to FHWA's Handbook, road construction and road expansion result in the loss of wildlife habitat by converting existing wildlife habitat areas into developed sections of pavement, dirt track, cleared roadsides, and/or rights-of-way.<sup>121</sup> Road construction and road expansion further negatively impact wildlife by causing habitat fragmentation, a phenomenon that occurs when wildlife become reluctant to move across roadways in order to access mates or habitat for food and cover.<sup>122</sup> The main factors caused road construction and road expansion that result in habitat fragmentation are traffic volume, road width, and/or major habitat alterations.<sup>123</sup>

Wildlife species that have large area needs are most sensitive to road-induced habitat loss.<sup>124</sup> The elk, migratory and non-migratory moose, swan, geese, black bear, and grizzly bear, that utilize the Pinehaven priority area all have large area needs and will very likely be negatively impacted by road construction, road expansion, habitat loss, and habitat fragmentation in the US 20 corridor.

Although a "No Build" alternative is referenced in the video for Pinehaven as PH0, this alternative is not depicted in and missing from the Level III Screening Alternatives. PH1 represents the proposed alternative with the lowest impact on wildlife movement and migration in and around the US 20 corridor. PH1 generally follows the existing alignment of US 20 with the least amount of road construction and road expansion. However, PH1 is not without any likely impacts to wildlife resources, because it transforms the current US 20 corridor into a four-lane, divided highway.

FHWA's Handbook provides specific guidance with respect to how a four-lane, divided highway would impact elk, migratory and non-migratory moose, and mule deer movement and migration in the Ashton priority area. The Handbook cautions that high-speed and high-volume roadways are typically the biggest barriers to wildlife movement and migration.<sup>125</sup> Furthermore, WVCs and other road-related mortality events combined with barriers to wildlife movement and migration have the biggest impact on wildlife population viability over time.<sup>126</sup> In order to address WVCs, road-related mortality events, barriers to wildlife movement and migration, and long-term wildlife population viability, the Handbook instructs that transportation planning agencies have three main options to reduce or eliminate the

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<sup>120</sup> Cramer, P.C., et al. "Safety solutions for wildlife-vehicle collisions on Idaho's US 20 and SH 87." Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>121</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>122</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>123</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>124</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>125</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>126</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

impacts of road construction and road expansion projects on wildlife: 1) select road alignments that avoid critical wildlife habitat; 2) mitigate affected wildlife populations and habitats; and/or, 3) compensate for the loss of wildlife habitat.<sup>127</sup>

Advancing PH1 as the preferred Level III Screening Alternative would help to reduce the impacts of road construction and road expansion associated with the Project by selecting a road alignment that avoids critical wildlife habitat. In combination with effectively designed and constructed wildlife crossings and properly placed wildlife exclusion fencing, PH1 is the Level III Screening Alternative that best advances the Project goal of integrating wildlife movement in the corridor.

Please note that, even with the advancement of PH1 as the preferred Level III Screening Alternative, significant concerns remain regarding the Project proposals for road construction and road expansion that are located on the CTNF administered by the USFS. The Forest Plan contains additional requirements above and beyond the obligations of ITD and IDFG with respect to road construction and road expansion in and around the US 20 corridor. Among these elevated requirements include the Standards and Guidelines for Roads, which include the duty for USFS to: 1) minimize construction of new transportation routes, evaluate existing routes, and reconstruct or relocate those routes not meeting management goals; 2) when highway construction or reconstruction is proposed in wildlife linkage areas, identify potential crossings and consider mitigation; and, 3) design and construct roads to a standard appropriate to their intended use, considering safety, cost, and resource impacts, emphasizing protection of water quality.<sup>128</sup>

The Level III Screening Alternatives under analysis, even PH1, fail to uphold the duties imposed on USFS by the Forest Plan. The Level III Screening Alternatives under analysis, including PH1, all expand the construction of new transportation routes; fail to adequately identify the appropriate potential crossing and mitigation information associated with the US 20 construction and reconstruction; and, design roads that are inappropriate for the use intended on the CTNF and in Island Park.

The Forest Plan also speaks to USFS's special duties to consider and protect ESA listed wildlife species like Grizzly bear, Canada lynx, and wolverine as well as terrestrial plant species like Whitebark pine. Guidance documents like the NRLMD contain additional requirements regarding the consideration and protection of these species. Among additional requirements include the Guidelines ALL G1, which provides that, "Methods to avoid or reduce effects on lynx should be used when constructing or reconstructing highways or forest highways across federal land."<sup>129</sup> These methods could include fencing, underpasses, or overpasses.<sup>130</sup>

The Level III Screening Alternatives under analysis, even PH1, also fail to uphold the duties imposed on USFS by the ESA and NRLMND. The Level III Screening Alternatives under analysis, including PH1, fail to mention Canada lynx entirely, let alone specific methods to avoid or reduce effects on lynx during Project construction or reconstruction on the CTNF.

### **Priority Area #3: Last Chance**

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<sup>127</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>128</sup> USDA Forest Service, 1997. Revised Forest Plan for the Caribou National Forest.

[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5229166.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5229166.pdf)

<sup>129</sup> USDA Forest Service, 2007. Northern Rockies Montana, and parts of Idaho, Wyoming, and Utah March 2007 Lynx Management Direction Record of Decision. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd524871.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd524871.pdf)

<sup>130</sup> USDA Forest Service, 2007. Northern Rockies Montana, and parts of Idaho, Wyoming, and Utah March 2007 Lynx Management Direction Record of Decision. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd524871.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd524871.pdf)

The Last Chance priority area is populated by several wildlife species, including but not limited to elk, migratory and non-migratory moose, mule deer, black bear, and grizzly bear.<sup>131</sup> Each of the proposed alternatives for the Ashton priority area would negatively impact, and potentially inhibit, the ability of these elk, migratory and non-migratory moose, mule deer, black bear, and grizzly bear to move and migrate in and around the US 20 corridor.

According to FHWA's Handbook, road construction and road expansion result in the loss of wildlife habitat by converting existing wildlife habitat areas into developed sections of pavement, dirt track, cleared roadsides, and/or rights-of-way.<sup>132</sup> Road construction and road expansion further negatively impact wildlife by causing habitat fragmentation, a phenomenon that occurs when wildlife become reluctant to move across roadways in order to access mates or habitat for food and cover.<sup>133</sup> The main factors caused road construction and road expansion that result in habitat fragmentation are traffic volume, road width, and/or major habitat alterations.<sup>134</sup>

Wildlife species that have large area needs are most sensitive to road-induced habitat loss.<sup>135</sup> The elk, migratory and non-migratory moose, mule deer, black bear, and grizzly bear, that utilize the Last Chance priority area all have large area needs and will very likely be negatively impacted by road construction, road expansion, habitat loss, and habitat fragmentation in the US 20 corridor.

Although a "No Build" alternative is referenced in the video for Last Chance as LC0, this alternative is not depicted in and missing from the Level III Screening Alternatives. LC1 represents the proposed alternative with the lowest impact on wildlife movement and migration in and around the US 20 corridor. LC1 generally follows the existing alignment of US 20 with the least amount of road construction and road expansion. However, LC1 is not without any likely impacts to wildlife resources, because it transforms the current US 20 corridor into a four-lane, divided highway.

FHWA's Handbook provides specific guidance with respect to how a four-lane, divided highway would impact elk, migratory and non-migratory moose, and mule deer movement and migration in the Ashton priority area. The Handbook cautions that high-speed and high-volume roadways are typically the biggest barriers to wildlife movement and migration.<sup>136</sup> Furthermore, WVCs and other road-related mortality events combined with barriers to wildlife movement and migration have the biggest impact on wildlife population viability over time.<sup>137</sup> In order to address WVCs, road-related mortality events, barriers to wildlife movement and migration, and long-term wildlife population viability, the Handbook instructs that transportation planning agencies have three main options to reduce or eliminate the impacts of road construction and road expansion projects on wildlife: 1) select road alignments that

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<sup>131</sup> Cramer, P.C., et al. "Safety solutions for wildlife-vehicle collisions on Idaho's US 20 and SH 87." Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>132</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>133</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>134</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>135</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>136</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>137</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

avoid critical wildlife habitat; 2) mitigate affected wildlife populations and habitats; and/or, 3) compensate for the loss of wildlife habitat.<sup>138</sup>

Advancing LC1 as the preferred Level III Screening Alternative would help to reduce the impacts of road construction and road expansion associated with the Project by selecting a road alignment that avoids critical wildlife habitat. In combination with effectively designed and constructed wildlife crossings and properly placed wildlife exclusion fencing, LC1 is the Level III Screening Alternative that best advances the Project goal of integrating wildlife movement in the corridor.

Please note that, even with the advancement of LC1 as the preferred Level III Screening Alternative, significant concerns remain regarding the Project proposals for road construction and road expansion that are located on the CTNF administered by the USFS. The Forest Plan contains additional requirements above and beyond the obligations of ITD and IDFG with respect to road construction and road expansion in and around the US 20 corridor. Among these elevated requirements include the Standards and Guidelines for Roads, which include the duty for USFS to: 1) minimize construction of new transportation routes, evaluate existing routes, and reconstruct or relocate those routes not meeting management goals; 2) when highway construction or reconstruction is proposed in wildlife linkage areas, identify potential crossings and consider mitigation; and, 3) design and construct roads to a standard appropriate to their intended use, considering safety, cost, and resource impacts, emphasizing protection of water quality.<sup>139</sup>

The Level III Screening Alternatives under analysis, even LC1, fail to uphold the duties imposed on USFS by the Forest Plan. The Level III Screening Alternatives under analysis, including LC1, all expand the construction of new transportation routes; fail to adequately identify the appropriate potential crossing and mitigation information associated with the US 20 construction and reconstruction; and, design roads that are inappropriate for the use intended on the CTNF and in Island Park.

The Forest Plan also speaks to USFS's special duties to consider and protect ESA listed wildlife species like Grizzly bear, Canada lynx, and wolverine as well as terrestrial plant species like Whitebark pine. Guidance documents like the NRLMD contain additional requirements regarding the consideration and protection of these species. Among additional requirements include the Guidelines ALL G1, which provides that, "Methods to avoid or reduce effects on lynx should be used when constructing or reconstructing highways or forest highways across federal land."<sup>140</sup> These methods could include fencing, underpasses, or overpasses.<sup>141</sup>

The Level III Screening Alternatives under analysis, even LC1, also fail to uphold the duties imposed on USFS by the NRLMND. The Level III Screening Alternatives under analysis, including LC1, fail to mention Canada lynx entirely, let alone specific methods to avoid or reduce effects on lynx during Project construction or reconstruction on the CTNF.

#### **Priority Area #4: Ponds Lodge**

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<sup>138</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>139</sup> USDA Forest Service, 1997. Revised Forest Plan for the Caribou National Forest. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5229166.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5229166.pdf)

<sup>140</sup> USDA Forest Service, 2007. Northern Rockies Montana, and parts of Idaho, Wyoming, and Utah March 2007 Lynx Management Direction Record of Decision. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd524871.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd524871.pdf)

<sup>141</sup> USDA Forest Service, 2007. Northern Rockies Montana, and parts of Idaho, Wyoming, and Utah March 2007 Lynx Management Direction Record of Decision. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd524871.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd524871.pdf)

The Ponds Lodge priority area is populated by several wildlife species, including but not limited to elk, non-migratory moose, and grizzly bear.<sup>142</sup> Each of the proposed alternatives for the Ashton priority area would negatively impact, and potentially inhibit, the ability of these elk, non-migratory moose, and grizzly bear to move and migrate in and around the US 20 corridor.

According to FHWA's Handbook, road construction and road expansion result in the loss of wildlife habitat by converting existing wildlife habitat areas into developed sections of pavement, dirt track, cleared roadsides, and/or rights-of-way.<sup>143</sup> Road construction and road expansion further negatively impact wildlife by causing habitat fragmentation, a phenomenon that occurs when wildlife become reluctant to move across roadways in order to access mates or habitat for food and cover.<sup>144</sup> The main factors caused road construction and road expansion that result in habitat fragmentation are traffic volume, road width, and/or major habitat alterations.<sup>145</sup>

Wildlife species that have large area needs are most sensitive to road-induced habitat loss.<sup>146</sup> The elk, non-migratory moose, and grizzly bear, that utilize the Ponds Lodge priority area all have large area needs and will very likely be negatively impacted by road construction, road expansion, habitat loss, and habitat fragmentation in the US 20 corridor.

Although a "No Build" alternative is referenced in the video for Ponds Lodge as PLO, this alternative is not depicted in and missing from the Level III Screening Alternatives. PL1 represents the proposed alternative with the lowest impact on wildlife movement and migration in and around the US 20 corridor. PL1 generally follows the existing alignment of US 20 with the least amount of road construction and road expansion. However, PL1 is not without any likely impacts to wildlife resources, because it transforms the current US 20 corridor into a four-lane, divided highway.

FHWA's Handbook provides specific guidance with respect to how a four-lane, divided highway would impact elk, migratory and non-migratory moose, and mule deer movement and migration in the Ashton priority area. The Handbook cautions that high-speed and high-volume roadways are typically the biggest barriers to wildlife movement and migration.<sup>147</sup> Furthermore, WVCs and other road-related mortality events combined with barriers to wildlife movement and migration have the biggest impact on wildlife population viability over time.<sup>148</sup> In order to address WVCs, road-related mortality events, barriers to wildlife movement and migration, and long-term wildlife population viability, the Handbook instructs that transportation planning agencies have three main options to reduce or eliminate the impacts of road construction and road expansion projects on wildlife: 1) select road alignments that avoid critical wildlife habitat; 2) mitigate affected wildlife populations and habitats; and/or, 3) compensate for the loss of wildlife habitat.<sup>149</sup>

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<sup>142</sup> Cramer, P.C., et al. "Safety solutions for wildlife-vehicle collisions on Idaho's US 20 and SH 87." Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>143</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>144</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>145</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>146</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>147</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>148</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>149</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

Advancing PL1 as the preferred Level III Screening Alternative would help to reduce the impacts of road construction and road expansion associated with the Project by selecting a road alignment that avoids critical wildlife habitat. In combination with effectively designed and constructed wildlife crossings and properly placed wildlife exclusion fencing, PL1 is the Level III Screening Alternative that best advances the Project goal of integrating wildlife movement in the corridor.

Please note that, even with the advancement of PL1 as the preferred Level III Screening Alternative, significant concerns remain regarding the Project proposals for road construction and road expansion that are located on the CTNF administered by the USFS. The Forest Plan

contains additional requirements above and beyond the obligations of ITD and IDFG with respect to road construction and road expansion in and around the US 20 corridor. Among these elevated requirements include the Standards and Guidelines for Roads, which include the duty for USFS to: 1) minimize construction of new transportation routes, evaluate existing routes, and reconstruct or relocate those routes not meeting management goals; 2) when highway construction or reconstruction is proposed in wildlife linkage areas, identify potential crossings and consider mitigation; and, 3) design and construct roads to a standard appropriate to their intended use, considering safety, cost, and resource impacts, emphasizing protection of water quality.<sup>150</sup>

The Level III Screening Alternatives under analysis, even PL1, fail to uphold the duties imposed on USFS by the Forest Plan. The Level III Screening Alternatives under analysis, including PL1, all expand the construction of new transportation routes; fail to adequately identify the appropriate potential crossing and mitigation information associated with the US 20 construction and reconstruction; and, design roads that are inappropriate for the use intended on the CTNF and in Island Park.

The Forest Plan also speaks to USFS's special duties to consider and protect ESA listed wildlife species like Grizzly bear, Canada lynx, and wolverine as well as terrestrial plant species like Whitebark pine. Guidance documents like the NRLMD contain additional requirements regarding the consideration and protection of these species. Among additional requirements include the Guidelines ALL G1, which provides that, "Methods to avoid or reduce effects on lynx should be used when constructing or reconstructing highways or forest highways across federal land."<sup>151</sup> These methods could include fencing, underpasses, or overpasses.<sup>152</sup>

The Level III Screening Alternatives under analysis, even PL1, also fail to uphold the duties imposed on USFS by the NRLMND. The Level III Screening Alternatives under analysis, including PL1, fail to mention Canada lynx entirely, let alone specific methods to avoid or reduce effects on lynx during Project construction or reconstruction on the CTNF.

#### **Priority Area #5: Elk Creek**

The Elk Creek priority area is populated by several wildlife species, including but not limited to elk, non-migratory moose, and grizzly bear.<sup>153</sup> Each of the proposed alternatives for the Elk Creek priority area

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<sup>150</sup> USDA Forest Service, 1997. Revised Forest Plan for the Caribou National Forest.

[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5229166.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5229166.pdf)

<sup>151</sup> USDA Forest Service, 2007. Northern Rockies Montana, and parts of Idaho, Wyoming, and Utah March 2007 Lynx Management Direction Record of Decision. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd524871.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd524871.pdf)

<sup>152</sup> USDA Forest Service, 2007. Northern Rockies Montana, and parts of Idaho, Wyoming, and Utah March 2007 Lynx Management Direction Record of Decision. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd524871.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd524871.pdf)

<sup>153</sup> Cramer, P.C., et al. "Safety solutions for wildlife-vehicle collisions on Idaho's US 20 and SH 87." Idaho Transportation Department Research Report, Boise, Idaho, 2016.

would negatively impact, and potentially inhibit, the ability of these elk, non-migratory moose, and grizzly bear to move and migrate in and around the US 20 corridor.

According to FHWA's Handbook, road construction and road expansion result in the loss of wildlife habitat by converting existing wildlife habitat areas into developed sections of pavement, dirt track, cleared roadsides, and/or rights-of-way.<sup>154</sup> Road construction and road expansion further negatively impact wildlife by causing habitat fragmentation, a phenomenon that occurs when wildlife become reluctant to move across roadways in order to access mates or habitat for food and cover.<sup>155</sup> The main factors caused road construction and road expansion that result in habitat fragmentation are traffic volume, road width, and/or major habitat alterations.<sup>156</sup>

Wildlife species that have large area needs are most sensitive to road-induced habitat loss.<sup>157</sup> The elk, non-migratory moose, and grizzly bear, that utilize the Elk Creek priority area all have large area needs and will very likely be negatively impacted by road construction, road expansion, habitat loss, and habitat fragmentation in the US 20 corridor.

Although a "No Build" alternative is referenced in the video for Elk Creek as EC0, this alternative is not depicted in and missing from the Level III Screening Alternatives. EC1 represents the proposed alternative with the lowest impact on wildlife movement and migration in and around the US 20 corridor. EC1 generally follows the existing alignment of US 20 with the least amount of road construction and road expansion. However, EC1 is not without any likely impacts to wildlife resources, because it transforms the current US 20 corridor into a four-lane, divided highway.

FHWA's Handbook provides specific guidance with respect to how a four-lane, divided highway would impact elk, migratory and non-migratory moose, and mule deer movement and migration in the Ashton priority area. The Handbook cautions that high-speed and high-volume roadways are typically the biggest barriers to wildlife movement and migration.<sup>158</sup> Furthermore, WVCs and other road-related mortality events combined with barriers to wildlife movement and migration have the biggest impact on wildlife population viability over time.<sup>159</sup> In order to address WVCs, road-related mortality events, barriers to wildlife movement and migration, and long-term wildlife population viability, the Handbook instructs that transportation planning agencies have three main options to reduce or eliminate the impacts of road construction and road expansion projects on wildlife: 1) select road alignments that avoid critical wildlife habitat; 2) mitigate affected wildlife populations and habitats; and/or, 3) compensate for the loss of wildlife habitat.<sup>160</sup>

Advancing EC1 as the preferred Level III Screening Alternative would help to reduce the impacts of road construction and road expansion associated with the Project by selecting a road alignment that avoids critical wildlife habitat. In combination with effectively designed and constructed wildlife crossings and

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<sup>154</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>155</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>156</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>157</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>158</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>159</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>160</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

properly placed wildlife exclusion fencing, EC1 is the Level III Screening Alternative that best advances the Project goal of integrating wildlife movement in the corridor.

Please note that, even with the advancement of EC1 as the preferred Level III Screening Alternative, significant concerns remain regarding the Project proposals for road construction and road expansion that are located on the CTNF administered by the USFS. The Forest Plan contains additional requirements above and beyond the obligations of ITD and IDFG with respect to road construction and road expansion in and around the US 20 corridor. Among these elevated requirements include the Standards and Guidelines for Roads, which include the duty for USFS to: 1) minimize construction of new transportation routes, evaluate existing routes, and reconstruct or relocate those routes not meeting management goals; 2) when highway construction or reconstruction is proposed in wildlife linkage areas, identify potential crossings and consider mitigation; and, 3) design and construct roads to a standard appropriate to their intended use, considering safety, cost, and resource impacts, emphasizing protection of water quality.<sup>161</sup>

The Level III Screening Alternatives under analysis, even EC1, fail to uphold the duties imposed on USFS by the Forest Plan. The Level III Screening Alternatives under analysis, including EC1, all expand the construction of new transportation routes; fail to adequately identify the appropriate potential crossing and mitigation information associated with the US 20 construction and reconstruction; and, design roads that are inappropriate for the use intended on the CTNF and in Island Park.

The Forest Plan also speaks to USFS's special duties to consider and protect ESA listed wildlife species like Grizzly bear, Canada lynx, and wolverine as well as terrestrial plant species like Whitebark pine. Guidance documents like the NRLMD contain additional requirements regarding the consideration and protection of these species. Among additional requirements include the Guidelines ALL G1, which provides that, "Methods to avoid or reduce effects on lynx should be used when constructing or reconstructing highways or forest highways across federal land."<sup>162</sup> These methods could include fencing, underpasses, or overpasses.<sup>163</sup>

The Level III Screening Alternatives under analysis, even EC1, also fail to uphold the duties imposed on USFS by the NRLMND. The Level III Screening Alternatives under analysis, including EC1, fail to mention Canada lynx entirely, let alone specific methods to avoid or reduce effects on lynx during Project construction or reconstruction on the CTNF.

#### **Priority Area #6: Macks Inn**

The Macks Inn priority area is populated by several wildlife species, including but not limited to elk, non-migratory moose, mule deer, and grizzly bear.<sup>164</sup> Each of the proposed alternatives for the Macks Inn priority area would negatively impact, and potentially inhibit, the ability of these elk, non-migratory moose, mule deer, and grizzly bear to move and migrate in and around the US 20 corridor.

According to FHWA's Handbook, road construction and road expansion result in the loss of wildlife habitat by converting existing wildlife habitat areas into developed sections of pavement, dirt track,

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<sup>161</sup> USDA Forest Service, 1997. Revised Forest Plan for the Caribou National Forest.

[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5229166.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5229166.pdf)

<sup>162</sup> USDA Forest Service, 2007. Northern Rockies Montana, and parts of Idaho, Wyoming, and Utah March 2007 Lynx Management Direction Record of Decision. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd524871.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd524871.pdf)

<sup>163</sup> USDA Forest Service, 2007. Northern Rockies Montana, and parts of Idaho, Wyoming, and Utah March 2007 Lynx Management Direction Record of Decision. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd524871.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd524871.pdf)

<sup>164</sup> Cramer, P.C., et al. "Safety solutions for wildlife-vehicle collisions on Idaho's US 20 and SH 87." Idaho Transportation Department Research Report, Boise, Idaho, 2016.



cleared roadsides, and/or rights-of-way.<sup>165</sup> Road construction and road expansion further negatively impact wildlife by causing habitat fragmentation, a phenomenon that occurs when wildlife become reluctant to move across roadways in order to access mates or habitat for food and cover.<sup>166</sup> The main factors caused road construction and road expansion that result in habitat fragmentation are traffic volume, road width, and/or major habitat alterations.<sup>167</sup>

Wildlife species that have large area needs are most sensitive to road-induced habitat loss.<sup>168</sup> The elk, non-migratory moose, mule deer, and grizzly bear, that utilize the Macks Inn priority area all have large area needs and will very likely be negatively impacted by road construction, road expansion, habitat loss, and habitat fragmentation in the US 20 corridor.

Although a “No Build” alternative is referenced in the video for Macks Inn as MI0, this alternative is not depicted in and missing from the Level III Screening Alternatives. MI1 represents the proposed alternative with the lowest impact on wildlife movement and migration in and around the US 20 corridor. MI1 generally follows the existing alignment of US 20 with the least amount of road construction and road expansion. However, MI1 is not without any likely impacts to wildlife resources, because it transforms the current US 20 corridor into a four-lane, divided highway.

FHWA's Handbook provides specific guidance with respect to how a four-lane, divided highway would impact elk, migratory and non-migratory moose, and mule deer movement and migration in the Ashton priority area. The Handbook cautions that high-speed and high-volume roadways are typically the biggest barriers to wildlife movement and migration.<sup>169</sup> Furthermore, WVCs and other road-related mortality events combined with barriers to wildlife movement and migration have the biggest impact on wildlife population viability over time.<sup>170</sup> In order to address WVCs, road-related mortality events, barriers to wildlife movement and migration, and long-term wildlife population viability, the Handbook instructs that transportation planning agencies have three main options to reduce or eliminate the impacts of road construction and road expansion projects on wildlife: 1) select road alignments that avoid critical wildlife habitat; 2) mitigate affected wildlife populations and habitats; and/or, 3) compensate for the loss of wildlife habitat.<sup>171</sup>

Advancing MI1 as the preferred Level III Screening Alternative would help to reduce the impacts of road construction and road expansion associated with the Project by selecting a road alignment that avoids critical wildlife habitat. In combination with effectively designed and constructed wildlife crossings and properly placed wildlife exclusion fencing, MI1 is the Level III Screening Alternative that best advances the Project goal of integrating wildlife movement in the corridor.

Please note that, even with the advancement of MI1 as the preferred Level III Screening Alternative, significant concerns remain regarding the Project proposals for road construction and road expansion that are located on the CTNF administered by the USFS. The Forest Plan contains additional

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<sup>165</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>166</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>167</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>168</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>169</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>170</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>171</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

requirements above and beyond the obligations of ITD and IDFG with respect to road construction and road expansion in and around the US 20 corridor. Among these elevated requirements include the Standards and Guidelines for Roads, which include the duty for USFS to: 1) minimize construction of new transportation routes, evaluate existing routes, and reconstruct or relocate those routes not meeting management goals; 2) when highway construction or reconstruction is proposed in wildlife linkage areas, identify potential crossings and consider mitigation; and, 3) design and construct roads to a standard appropriate to their intended use, considering safety, cost, and resource impacts, emphasizing protection of water quality.<sup>172</sup>

The Level III Screening Alternatives under analysis, even MI1, fail to uphold the duties imposed on USFS by the Forest Plan. The Level III Screening Alternatives under analysis, including MI1, all expand the construction of new transportation routes; fail to adequately identify the appropriate potential crossing and mitigation information associated with the US 20 construction and reconstruction; and, design roads that are inappropriate for the use intended on the CTNF and in Island Park.

The Forest Plan also speaks to USFS's special duties to consider and protect ESA listed wildlife species like Grizzly bear, Canada lynx, and wolverine as well as terrestrial plant species like Whitebark pine. Guidance documents like the NRLMD contain additional requirements regarding the consideration and protection of these species. Among additional requirements include the Guidelines ALL G1, which provides that, "Methods to avoid or reduce effects on lynx should be used when constructing or reconstructing highways or forest highways across federal land."<sup>173</sup> These methods could include fencing, underpasses, or overpasses.<sup>174</sup>

The Level III Screening Alternatives under analysis, even MI1, also fail to uphold the duties imposed on USFS by the NRLMD. The Level III Screening Alternatives under analysis, including MI1, fail to mention Canada lynx entirely, let alone specific methods to avoid or reduce effects on lynx during Project construction or reconstruction on the CTNF.

### **Priority Area #7: Island Park Village**

The Island Park Village priority area is populated by several wildlife species, including but not limited to elk, non-migratory moose, mule deer, and grizzly bear.<sup>175</sup> Each of the proposed alternatives for the Island Park Village priority area would negatively impact, and potentially inhibit, the ability of these elk, non-migratory moose, mule deer, and grizzly bear to move and migrate in and around the US 20 corridor.

According to FHWA's Handbook, road construction and road expansion result in the loss of wildlife habitat by converting existing wildlife habitat areas into developed sections of pavement, dirt track, cleared roadsides, and/or rights-of-way.<sup>176</sup> Road construction and road expansion further negatively impact wildlife by causing habitat fragmentation, a phenomenon that occurs when wildlife become

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<sup>172</sup> USDA Forest Service, 1997. Revised Forest Plan for the Caribou National Forest.

[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5229166.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5229166.pdf)

<sup>173</sup> USDA Forest Service, 2007. Northern Rockies Montana, and parts of Idaho, Wyoming, and Utah March 2007 Lynx Management Direction Record of Decision. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd524871.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd524871.pdf)

<sup>174</sup> USDA Forest Service, 2007. Northern Rockies Montana, and parts of Idaho, Wyoming, and Utah March 2007 Lynx Management Direction Record of Decision. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd524871.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd524871.pdf)

<sup>175</sup> Cramer, P.C., et al. "Safety solutions for wildlife-vehicle collisions on Idaho's US 20 and SH 87." Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>176</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

reluctant to move across roadways in order to access mates or habitat for food and cover.<sup>177</sup> The main factors caused road construction and road expansion that result in habitat fragmentation are traffic volume, road width, and/or major habitat alterations.<sup>178</sup>

Wildlife species that have large area needs are most sensitive to road-induced habitat loss.<sup>179</sup> The elk, non-migratory moose, mule deer, and grizzly bear, that utilize the Island Park Village priority area all have large area needs and will very likely be negatively impacted by road construction, road expansion, habitat loss, and habitat fragmentation in the US 20 corridor.

Although a “No Build” alternative is referenced in the video for Island Park Village as IPV0, this alternative is not depicted in and missing from the Level III Screening Alternatives. IPV1 represents the proposed alternative with the lowest impact on wildlife movement and migration in and around the US 20 corridor. IPV1 generally follows the existing alignment of US 20 with the least amount of road construction and road expansion. However, IPV1 is not without any likely impacts to wildlife resources, because it transforms the current US 20 corridor into a four-lane, divided highway.

FHWA's Handbook provides specific guidance with respect to how a four-lane, divided highway would impact elk, migratory and non-migratory moose, and mule deer movement and migration in the Ashton priority area. The Handbook cautions that high-speed and high-volume roadways are typically the biggest barriers to wildlife movement and migration.<sup>180</sup> Furthermore, WVCs and other road-related mortality events combined with barriers to wildlife movement and migration have the biggest impact on wildlife population viability over time.<sup>181</sup> In order to address WVCs, road-related mortality events, barriers to wildlife movement and migration, and long-term wildlife population viability, the Handbook instructs that transportation planning agencies have three main options to reduce or eliminate the impacts of road construction and road expansion projects on wildlife: 1) select road alignments that avoid critical wildlife habitat; 2) mitigate affected wildlife populations and habitats; and/or, 3) compensate for the loss of wildlife habitat.<sup>182</sup>

Advancing IPV1 as the preferred Level III Screening Alternative would help to reduce the impacts of road construction and road expansion associated with the Project by selecting a road alignment that avoids critical wildlife habitat. In combination with effectively designed and constructed wildlife crossings and properly placed wildlife exclusion fencing, IPV1 is the Level III Screening Alternative that best advances the Project goal of integrating wildlife movement in the corridor.

Please note that, even with the advancement of IPV1 as the preferred Level III Screening Alternative, significant concerns remain regarding the Project proposals for road construction and road expansion that are located on the CTNF administered by the USFS. The Forest Plan contains additional requirements above and beyond the obligations of ITD and IDFG with respect to road construction and road expansion in and around the US 20 corridor. Among these elevated requirements include the Standards and Guidelines for Roads, which include the duty for USFS to: 1) minimize construction of new

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<sup>177</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>178</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>179</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>180</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>181</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>182</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

transportation routes, evaluate existing routes, and reconstruct or relocate those routes not meeting management goals; 2) when highway construction or reconstruction is proposed in wildlife linkage areas, identify potential crossings and consider mitigation; and, 3) design and construct roads to a standard appropriate to their intended use, considering safety, cost, and resource impacts, emphasizing protection of water quality.<sup>183</sup>

The Level III Screening Alternatives under analysis, even IPV1, fail to uphold the duties imposed on USFS by the Forest Plan. The Level III Screening Alternatives under analysis, including IPV1, all expand the construction of new transportation routes; fail to adequately identify the appropriate potential crossing and mitigation information associated with the US 20 construction and reconstruction; and, design roads that are inappropriate for the use intended on the CTNF and in Island Park.

The Forest Plan also speaks to USFS's special duties to consider and protect ESA listed wildlife species like Grizzly bear, Canada lynx, and wolverine as well as terrestrial plant species like Whitebark pine. Guidance documents like the NRLMD contain additional requirements regarding the consideration and protection of these species. Among additional requirements include the Guidelines ALL G1, which provides that, "Methods to avoid or reduce effects on lynx should be used when constructing or reconstructing highways or forest highways across federal land."<sup>184</sup> These methods could include fencing, underpasses, or overpasses.<sup>185</sup>

The Level III Screening Alternatives under analysis, even IPV1, also fail to uphold the duties imposed on USFS by the NRLMND. The Level III Screening Alternatives under analysis, including IPV1, fail to mention Canada lynx entirely, let alone specific methods to avoid or reduce effects on lynx during Project construction or reconstruction on the CTNF.

#### **Priority Area #8: Red Rock Road**

The Red Rock Road priority area is populated by several wildlife species, including but not limited to elk, migratory and non-migratory moose, mule deer, wolverine, and grizzly bear.<sup>186</sup> Each of the proposed alternatives for the Red Rock Road priority area would negatively impact, and potentially inhibit, the ability of these e elk, migratory and non-migratory moose, mule deer, wolverine, and grizzly bear to move and migrate in and around the US 20 corridor.

According to FHWA's Handbook, road construction and road expansion result in the loss of wildlife habitat by converting existing wildlife habitat areas into developed sections of pavement, dirt track, cleared roadsides, and/or rights-of-way.<sup>187</sup> Road construction and road expansion further negatively impact wildlife by causing habitat fragmentation, a phenomenon that occurs when wildlife become reluctant to move across roadways in order to access mates or habitat for food and cover.<sup>188</sup> The main

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<sup>183</sup> USDA Forest Service, 1997. Revised Forest Plan for the Caribou National Forest.

[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5229166.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5229166.pdf)

<sup>184</sup> USDA Forest Service, 2007. Northern Rockies Montana, and parts of Idaho, Wyoming, and Utah March 2007 Lynx Management Direction Record of Decision. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd524871.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd524871.pdf)

<sup>185</sup> USDA Forest Service, 2007. Northern Rockies Montana, and parts of Idaho, Wyoming, and Utah March 2007 Lynx Management Direction Record of Decision. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd524871.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd524871.pdf)

<sup>186</sup> Cramer, P.C., et al. "Safety solutions for wildlife-vehicle collisions on Idaho's US 20 and SH 87." Idaho Transportation Department Research Report, Boise, Idaho, 2016.

<sup>187</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>188</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

factors caused road construction and road expansion that result in habitat fragmentation are traffic volume, road width, and/or major habitat alterations.<sup>189</sup>

Wildlife species that have large area needs are most sensitive to road-induced habitat loss.<sup>190</sup> The elk, migratory and non-migratory moose, mule deer, wolverine, and grizzly bear, that utilize the Red Rock Road priority area all have large area needs and will very likely be negatively impacted by road construction, road expansion, habitat loss, and habitat fragmentation in the US 20 corridor.

Although a “No Build” alternative is referenced in the video for Red Rock Road as RR0, this alternative is not depicted in and missing from the Level III Screening Alternatives. RR1 represents the proposed alternative with the lowest impact on wildlife movement and migration in and around the US 20 corridor. RR1 generally follows the existing alignment of US 20 with the least amount of road construction and road expansion. However, RR1 is not without any likely impacts to wildlife resources, because it transforms the current US 20 corridor into a four-lane, divided highway.

FHWA's Handbook provides specific guidance with respect to how a four-lane, divided highway would impact elk, migratory and non-migratory moose, and mule deer movement and migration in the Ashton priority area. The Handbook cautions that high-speed and high-volume roadways are typically the biggest barriers to wildlife movement and migration.<sup>191</sup> Furthermore, WVCs and other road-related mortality events combined with barriers to wildlife movement and migration have the biggest impact on wildlife population viability over time.<sup>192</sup> In order to address WVCs, road-related mortality events, barriers to wildlife movement and migration, and long-term wildlife population viability, the Handbook instructs that transportation planning agencies have three main options to reduce or eliminate the impacts of road construction and road expansion projects on wildlife: 1) select road alignments that avoid critical wildlife habitat; 2) mitigate affected wildlife populations and habitats; and/or, 3) compensate for the loss of wildlife habitat.<sup>193</sup>

Advancing RR1 as the preferred Level III Screening Alternative would help to reduce the impacts of road construction and road expansion associated with the Project by selecting a road alignment that avoids critical wildlife habitat. In combination with effectively designed and constructed wildlife crossings and properly placed wildlife exclusion fencing, RR1 is the Level III Screening Alternative that best advances the Project goal of integrating wildlife movement in the corridor.

Please note that, even with the advancement of RR1 as the preferred Level III Screening Alternative, significant concerns remain regarding the Project proposals for road construction and road expansion that are located on the CTNF administered by the USFS. The Forest Plan contains additional requirements above and beyond the obligations of ITD and IDFG with respect to road construction and road expansion in and around the US 20 corridor. Among these elevated requirements include the Standards and Guidelines for Roads, which include the duty for USFS to: 1) minimize construction of new transportation routes, evaluate existing routes, and reconstruct or relocate those routes not meeting management goals; 2) when highway construction or reconstruction is proposed in wildlife linkage areas, identify potential crossings and consider mitigation; and, 3) design and construct roads to a

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<sup>189</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>190</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>191</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>192</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

<sup>193</sup> Central Federal Lands Highway Division, Federal Highway Administration. 2011. *Wildlife Crossing Structures Handbook Design and Evaluation in North America*. Publication No. FHWA-CFL/TD-11-003.

standard appropriate to their intended use, considering safety, cost, and resource impacts, emphasizing protection of water quality.<sup>194</sup>

The Level III Screening Alternatives under analysis, even RR1, fail to uphold the duties imposed on USFS by the Forest Plan. The Level III Screening Alternatives under analysis, including RR1, all expand the construction of new transportation routes; fail to adequately identify the appropriate potential crossing and mitigation information associated with the US 20 construction and reconstruction; and, design roads that are inappropriate for the use intended on the CTNF and in Island Park.

The Forest Plan also speaks to USFS's special duties to consider and protect ESA listed wildlife species like Grizzly bear, Canada lynx, and wolverine as well as terrestrial plant species like Whitebark pine. Guidance documents like the NRLMD contain additional requirements regarding the consideration and protection of these species. Among additional requirements include the Guidelines ALL G1, which provides that, "Methods to avoid or reduce effects on lynx should be used when constructing or reconstructing highways or forest highways across federal land."<sup>195</sup> These methods could include fencing, underpasses, or overpasses.<sup>196</sup>

The Level III Screening Alternatives under analysis, even RR1, also fail to uphold the duties imposed on USFS by the NRLMND. The Level III Screening Alternatives under analysis, including RR1, fail to mention Canada lynx entirely, let alone specific methods to avoid or reduce effects on lynx during Project construction or reconstruction on the CTNF.

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<sup>194</sup> USDA Forest Service, 1997. Revised Forest Plan for the Caribou National Forest.

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<sup>195</sup> USDA Forest Service, 2007. Northern Rockies Montana, and parts of Idaho, Wyoming, and Utah March 2007 Lynx Management Direction Record of Decision. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd524871.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd524871.pdf)

<sup>196</sup> USDA Forest Service, 2007. Northern Rockies Montana, and parts of Idaho, Wyoming, and Utah March 2007 Lynx Management Direction Record of Decision. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd524871.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd524871.pdf)