APPENDIX C – ERRATA SHEET

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REVISIONS TO THE TEXT OF
THE NORTH HIGHWAY 89 PATHWAY PROJECT
ENVIRONMENTAL ASSESSMENT

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North Highway 89 Pathway Project Environmental Assessment

This errata sheet documents changes to the text of the North Highway 89 Pathway Project EA since the document was released on February 6th, 2009. Revisions are the result of responses to a number of the substantive comments to the EA (Appendix B). ~~Strikethrough~~ text reflects deletions in the EA and **bold underlined** text reflects insertions in the EA. Page numbers refer to the document released on February 6, 2009.

I. PROJECT AREA DESCRIPTION AND LOCATION REVISIONS

Section 1.2, pg. 2 –Insert corrects the description of Grand Teton National Park boundary:

The project area consists of a linear corridor along US Highway 26/89/191 that extends from the south side of Flat Creek Bridge within the Town of Jackson to the southern boundary of Grand Teton National Park. On the east side of the highway, the actual southern boundary of Grand Teton National Park is unclear and may fall within the main channel of the Gros Ventre River. On the west side of the highway, the southern boundary of Grand Teton National Park is just ~~north~~ **south** of Nichol Springs Road (Figure 1).

II. VEGETATION REVISIONS

Section 3.2, pg. 19 - Inserts description of basin big sagebrush distribution on and in the vicinity of the project area:

North of the National Fish Hatchery, plant communities transition into non-mesic shrub communities dominated by sagebrush and upland grasses. Here disturbance is variable and generally encompasses areas adjacent to the road and areas where utilities have been extended out to the Refuge fence. These disturbed areas are dominated by smooth brome (*Bromus inermis*), crested wheatgrass (*Agropyron cristatum*) nodding plumeless thistle (*Carduus nutans*) and, to a lesser extent, cheatgrass (*Bromus tectorum)*. Overall, the mesic sagebrush covertype has been maintained in its relatively natural state. A variety of sagebrush species found in this covertype, including mountain big sagebrush (*Artemisia tridentata ssp. vaseyana*), Wyoming big sagebrush (*Artemisia tridentata ssp. wyomingensis),* threetip sagebrush *(Artemisia tripartita)***, basin big sagebrush (*Artemisia tridentata spp. tridentata)*** and prairie sagewort *(Artemisia frigida)*. The mid-story is also dominated by yellow rabbitbrush (*Chrysothamnus viscidiflorus)*. The understory of the mesic sagebrush covertype is dominated by native grasses and forbs consisting of bluegrass (*Poa spp.)*, Idaho fescue (*Festuca idahoensis)*, basin wildrye (*Leymus cinereus*), and sulphur-flower buckwheat (*Eriogonum umbellatum)*.

Section 4.2, pg. – 34 – Adds discussion specific to basin big sagebrush effects to vegetation impacts:

….The vegetation would consist of native and non-native forbs and grasses, and a small expanse of native sagebrush shrubland. Alternative D would impact the same type and a slightly greater extent of vegetation than Alternative B due to the inclusion of a second underpass (approximately 15.20 acres of temporary disturbance and 7.60 acres of permanent loss). **All of the alternatives have the potential to impact a small number of individual basin big sagebrush shrubs, although mitigation measures would result in avoidance or minimizing these impacts.**

Overall, direct vegetation impacts would be greatest under Alternative ~~B~~**D** and marginally less under Alternative ~~D~~**B**.

III. WETLAND AND WATER RESOURCES REVISIONS

Section 3.3, pg. 20 – Insert changes the characterization of wetlands between US Highway 89 and the west side of the National Elk Refuge Fence

Approximately 2.19 acres of palustrine scrub-shrub (seasonally flooded) wetlands and palustrine emergent (semi-permanently and seasonally flooded) wetlands occur within the project area, along the east side of the highway from the southern project boundary to the approach to Fish Hatchery Hill. Due to past disturbances, wetlands adjacent to the east side of the highway, especially those outside (west) of the Refuge fence, ~~do not provide the same~~ **have reduced** function~~s~~ and quality ~~as Refuge wetlands located east of the fence~~. Wetlands west of the Refuge fence ~~are hydrologically isolated from East Gros Ventre Butte,~~ receive pollution via runoff from the highway, and have been directly impacted by fill from highway maintenance projects in several areas. Additionally, the proximity to heavy vehicle traffic has ~~drastically~~ reduced the habitat quality of these wetlands. There is intensive ungulate browsing on the emergent and scrub-shrub wetland communities adjacent to the project area, within the Refuge fence. Though very small in size, the isolated pockets of wetland vegetation within the project area are more structurally diverse, and do not exhibit the effects of intensive browsing by ungulates.

Section 3.3, pg. 20 – Insert provides a more accurate discussion of hydrologic relations between wetlands on the west and east sides of US Highway 89:

~~Wetlands west of the Refuge fence are hydrologically isolated from East Gros Ventre Butte, receive~~ **Currently, some surface runoff and near-surface groundwater flow from East Gros Ventre Butte to the wetlands located west of the Refuge fence is impeded by the highway and associated road prism. Water historically flowed down the east side of East Gros Ventre Butte directly into Refuge wetlands. After highway construction, runoff from the east side of East Gros Ventre Butte either stays on the west side of the highway or flows along the west side of the highway until it reaches a culvert, where it can flow into either uplands or wetlands on the east side of the US Highway 89. These wetlands receive** pollution via runoff from the highway, and **in places may** have been directly impacted by fill from *past* highway **construction and/or** maintenance projects ~~in several areas~~.

IV. SAGE-GROUSE COMMENTS

Section 4.5.5, pg. 40– Insert clarifies cumulative impact conclusion statement for greater sage-grouse.

~~Given the existing habitat fragmentation and reduced habitat effectiveness in the vicinity of the project area, and the fact that no development-related impacts exceed negligible, pathway alternatives are not expected to contribute to cumulative effects to greater sage-grouse. Overall, cumulative effects on sage-grouse in the vicinity of the project area would be adverse and minor. Though very few individual birds are anticipated to be indirectly impacted, the minor level is appropriate because of the small local population of sage-grouse.~~ **The cumulative effects of past, present and ongoing actions on greater sage-grouse in the Upper Snake River Basin include residential development, development of transportation infrastructure, livestock grazing, fire management, sagebrush removal, recreation activity and future operations of the Jackson Hole Airport. The intensity of cumulative impacts on greater sage-grouse is best assessed by examining the status of sage-grouse population. While there is a degree of uncertainty about current trends affecting future population viability of local sage-grouse,**

the January 2008 Upper Snake River Basin Conservation Plan is considered in this analysis as a collaborative, interagency document that provides a synthesis of the best currently available science, and informs local planning decisions affecting the entire population in question. Fire management, including beneficial and adverse impacts to sage-grouse habitat, is a highly prioritized mission of this interagency collaborative stakeholders group. In addition, Region 6 of the US Fish and Wildlife Service is currently preparing a revised 12-month finding for a petition to list the greater sage-grouse as a protected species under the Endangered Species Act. All federal actions will require consultation with the US Fish and Wildlife Service, including this proposed pathway, and as such will undergo scrutiny for impacts to sage-grouse. Given the small size of the Upper Snake River Basin population of sage-grouse, relative isolation, and minimal population growth, this population is inherently susceptible to unforeseeable stochastic events. The relative contribution of any of the action alternatives to cumulative sage-grouse impacts would be below a measureable level of detection given the amount and quality of habitat potentially impacted by the pathway alignment.

V. MISCELLANEOUS COMMENTS

Executive Summary, pg. ; Section 1.3, pg. 3; Section 2.2, pg. 11; Section 2.3, pg. 11; Section 3.7, pg. 29; - Update shoulder width dimensions

Currently, non-motorized travelers and recreationists use sub-standard shoulders (~~two to four~~ **4 to 7** feet wide) directly adjacent to the highway.

Currently, non-motorized travelers and recreationists use sub-standard shoulders (~~2 to 4~~ **4 to 7** feet wide) directly adjacent to the highway.

It is probable but uncertain that the existing shoulder widths along the highway would remain unchanged (~~2 to 4~~ **4 to 7** feet-wide) under all alternatives.

Existing shoulders along the highway would likely remain inadequate for non-motorized transportation uses (~~2 to 4~~ **4 to 7** feet-wide).

Currently, non-motorized travelers and recreationists are subjected to sub-standard shoulders (~~2 to 4~~**4 to 7** feet wide) directly adjacent to the highway.

Section 2.2, page 10 – Insert lighting details:

Pathway Lighting – Lighting, if any, would be minimal and confined to highway underpasses. **In addition, underpass lighting would be designed to avoid impacts to the human and natural environment. It is not expected to be visible outside of the underpass nor operational during seasonal pathway closures. Any lighting would be user/motion activated and would remain on only for 30-60 seconds after activation (or enough time for a walker at 3-4 ft/sec to clear the tunnel, plus a short grace period). Lighting would be downcast and directed towards the interior of the tunnel.**