

Comment #	Original Comment	UDWRe Response	resource
NPS Cmt 4	<p>The NPS requests additional analysis of all plants and animals within NPS units which are listed as threatened or endangered per the Endangered Species Act as many plant species have been omitted. Additional analysis is also requested fro Endangered Species Act Section 10(j) experimental populations in National Park System units as any "experimental" populations within NPS system units are to be treated as "threatened" status per Endangered Species Act Section 10(j). Please update text to include any additional plant or animal species including "experimental" populations within NPS system units.</p>	<p>All threatened or endangered species, including experimental populations within NPS units, and associated analysis are added to the License Application as follows. Sections 5.3.10 (Special Status Plant Species) and 5.3.12 (Special Status Wildlife Species), Chapter 5, Exhibit E of the License Application are updated to include all currently listed species. Please see the updated sections in responses to NPS Comment Nos. 75, 86, and 89.</p> <p>Regarding Section 10(j) of the Endangered Species Act, the California Condor is included in Sections 5.3.12.1.2 and 5.3.12.2.2.2, (Listed Nonessential Experimental Population Species), Chapter 5, Exhibit E of the License Application. Section 5.3.12.1.2 Chapter 5, Exhibit E of the License Application is revised by adding the following before the last sentence of the first paragraph: Any "experimental" populations within NPS system units are to be treated as "threatened" status per Endangered Species Act Section 10(j). Section 10(j) goes on to state that the USFWS agreed to “relocate any California condor within the experimental population area, including the National Park System to address immediate hazards to condors, improve condor survival, and avoid conflicts with ongoing or proposed activities, or as requested by an adversely affected landowner, land manager, local government, political subdivision, or other adversely affected party” and “ensure to the maximum extent practicable that current and future land, water, or air uses and activities such as, but not limited to, commercial and business development, forest management, agriculture, mining (e.g., coal), livestock grazing, development of transportation and utility corridors (e.g., power transmission lines), communication facilities, water development projects, sport hunting and fishing, air tour operations, and outdoor recreational activities (e.g., jeep tours, hiking) should not be restricted due to the designation of the nonessential experimental population, the presence or potential presence of California condors”.</p>	wildlife
NPS Cmt 77	<p>The NPS requests that the text be updated to include that Bighorn habitat and individuals also occur in the Thousands Pockets/Water Pockets/Cedar Mountain area to the west of Highway 89 in AZ.</p>	<p>The text is updated with information that Bighorn habitat and individuals occur in the area.</p> <p>The following sentence is added to the end of the last paragraph of the Desert Bighorn Sheep text in Section 5.3.11.1.1.3 Big Game Crucial Ranges and Migration Routes, Chapter 5, Exhibit E of the License Application and reads: Desert bighorn sheep habitat and individuals also occur in the Thousand Pockets/Water Pockets/Cedar Mountain area to the west of Highway 89 in Arizona.</p>	wildlife
NPS Cmt 78	<p>Please identify the methodology for this survey.</p>	<p>The requested methodology is identified in two Final Study Reports.</p> <p>The methodology for wildlife observations recorded in Section 5.3.11.1.2.1 and Table 5-103 is described in Final Study Report 15, Vegetation Communities, Chapter 3 (Methodology), Sections 3.2, 3.3, 3.4, 3.5 and 3.6, and summarized in Final Study Report 21, Wildlife Resources, Chapter 2 (Methodology), Sections 2.2, 2.3 and 2.4.</p>	wildlife

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NPS Cmt 79	<p>The NPS requests additional review regarding the identification of <i>Holbrookia maculata</i> as it has never been found on the Colorado Plateau in the project area and may be a mis-identification. However, the species may occur locally around St. George.</p>	<p>Field notes prepared by trained biologists who performed the LPP vegetation and wildlife surveys document occurrence of the species <i>Holbrookia maculata</i> (common lesser earless lizard) within the Colorado Plateau Ecological Region near St. George in Washington County, Utah. Multiple other lizard species were documented to the species level in field notes for the same site within the Colorado Plateau Ecological Region near St. George.</p>	wildlife
NPS Cmt 80	<p><i>Arizona elegans</i> (glossy snake) has been observed directly in the project area in GLCA as reported in material sent to the contractors and is a special status species. The NPS requests that this information be included in the document.</p>	<p><i>Arizona elegans</i> (<i>Arizona elegans</i>) is retained in Table 5-105, Additional Potential Wildlife Species in the Area of Potential Effect, in Section 5.3.11.1.2.3, Chapter 5, Exhibit E because the species may occur in the Mohave Desert Ecological Region in Utah within the LPP study area, where it is not considered a special status species. Please see the response to NPS Comment No. 87 for addition of <i>Arizona</i> glossy snake and desert night lizard into Table 5-108, Federal, State and Agency Wildlife Species of Concern. Please see the response to NPS Comment No. 89 for addition of <i>Arizona</i> glossy snake information in Section 5.3.12.1.3.2 as a NPS special status species occurring within GLCA.</p>	wildlife
NPS Cmt 81	<p>This states that there are "No regulatory guidelines for wildlife population or habitat loss or effects". For areas on NPS lands, the NPS requests that this statement be revised to reference the regulatory guidelines identified in the NPS Management Policies (2006) Section 4.4 regarding wildlife management.</p>	<p>The statement is revised to reference NPS regulatory guidelines for wildlife management.</p> <p>The first sentence of Section 5.3.11.2.1 Significance Criteria, Chapter 5, Exhibit E of the License Application is revised to read: There are no regulatory guidelines for wildlife population or habitat loss or effects except that on NPS administered lands regulatory guidance is provided as part of Section 4.4 of NPS's Management Policies 2006 document.</p>	wildlife

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NPS Cmt 82	<p>3,178 + a % of 988 acres of Colorado Plateau vegetation are affected, but only 1,613 acres of wildlife habitat will be affected. The NPS requests additional analysis for calculations and their impacts between the relation of vegetation and wildlife sections on affected acres.</p>	<p>The additional analysis has been completed. The affected acres disturbed for the vegetation communities identified in Section 5.3.8.2.1 of Chapter 5 of the PLP and the affected wildlife habitat identified in Section 5.3.11.2.2.1 of Chapter 5 of the PLP were reconciled as part of completing the Final License Application. The first paragraph in Section 5.3.8.2.1, Chapter 5, Exhibit E of the License Application is revised to adjust the total affected acreage down by one acre, to clarify that the acreages include the transmission line construction, and to state that staging areas would affect additional acres of vegetation communities. The first paragraph in Section 5.3.8.2.1, Chapter 5, Exhibit E of the License Application is revised to read: The Proposed Action (Intake System, Water Conveyance System, Hydro System, KCWCD System, and Transmission Line System) construction would directly affect vegetation communities covering 4,123 acres in the ROW. Temporary and permanent effects on vegetation communities in both the Colorado Plateau and Mojave Desert regions are quantified in Table 5-79. The Proposed Action would directly affect a total of 3,506 acres in the Colorado Plateau Ecological Region; however, only 37 percent of the disturbance would be permanent. The Proposed Action construction would directly affect vegetation communities covering 618 acres in the Mojave Desert Ecological Region, half of which would be permanent disturbance. Staging areas would have an additional 613 acres of short-term effects on Colorado Plateau Ecological Region vegetation communities during construction.</p> <p>The acres of vegetation communities affected were revised during preparation of the Final License Application and Table 5-79 in Section 5.3.8.2.1 of Chapter 5, Exhibit E of the License Application lists 2,200.2 acres of temporary effects and 1,305.6 acres of permanent effects on the Colorado River Plateau Ecological Region. Similarly, Section 5.3.11.2.2.1, Chapter 5, Exhibit E of the License Application explains there would be 2,200 acres of short-term effects and 1,306 acres of long-term effects on wildlife habitat on the Colorado River Plateau Ecological Region.</p> <p>Similarly, the affected acres were reconciled for the Mohave Desert Ecological Region in both Section 5.3.8.2.1 and Section 5.3.11.2.2.1, Chapter 5, Exhibit E of the License Application. Both sections now state that there would be approximately 304 acres of short-term (temporary) effects and 313 acres of long-term (permanent) effects on the Mohave Desert Ecological Region.</p>	wildlife

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NPS Cmt 83	Arizona bighorn use the area to move back and forth between Lake Powell and areas to the west along the north side of Paria Canyon. Please update the text to reflect this.	<p>The text is updated to reflect the movement of bighorn sheep in the area.</p> <p>The last sentence of the Desert Bighorn Sheep text in Section 5.3.11.2.2.2 Big Game Seasonal Ranges and Migration Route Effects, Chapter 5, Exhibit E of the License Application is revised and a sentence added as follows: LPP features do not cross Arizona crucial bighorn sheep habitat (Figure 5-154); there would be no effects on seasonally important Arizona bighorn sheep range. However, desert bighorn sheep do use the LPP area to move back and forth between Lake Powell and areas to the west along the north side of Paria Canyon.</p>	wildlife
NPS Cmt 84	The NPS request references to studies or observational data to support the statement, "...disturbed areas would regain much of their habitat values in two or three growing seasons..." It is highly unlikely that any shrub habitat would recover in less than 20-30 years, and not at all for some species such as blackbrush, for reasons previously stated in comment 68.	<p>The text is changed to address the comment.</p> <p>The third sentence in the third paragraph in Section 5.3.11.2.2.3, Chapter 5, Exhibit E of the License Application is revised to read: After restoration and revegetation, temporarily disturbed areas would regain some habitat value in two or three growing seasons. Affected shrub habitat could take 20 to 30 years or more to provide the same wildlife habitat values as pre-construction conditions, and these would be long-term effects.</p>	wildlife
NPS Cmt 85	The NPS requests additional analysis to consider any new construction in this area that could affect herd movements from bighorn migration in the Arizona portion of the transmission project.	<p>The requested changes in the analysis have been addressed. The seventh paragraph in Section 5.3.11.2.2.2, Chapter 5, Exhibit E of the License Application is revised to read: LPP features do not cross mapped Arizona bighorn sheep habitat (Figure 5-154); there would be minor effects on seasonally important Arizona bighorn sheep range. While there is no identified migration habitat for bighorn in Arizona, some movement is likely on NPS-administered land. Metapopulations require the ability to move between mountain ranges to maintain genetic diversity through breeding and to colonize new areas (Wehausen, no date). LPP transmission line construction disturbance would have the potential to temporarily disrupt this migration. These effects are anticipated to be minor because the transmission line would be overhead and ground disturbance would be reclaimed. Additionally, the transmission line alignment parallels existing transmission lines that do not present a barrier to potential migration. A period of potential migration disturbance could occur during LPP construction on NPS-administered land; however, the lack of mapped migration corridors and location of potential disturbance would result in minor effects on migrating Arizona bighorn sheep.</p>	wildlife
NPS Cmt 86	The NPS requests that clarification language be added to the text to describe that on NPS lands, experimental, non-essential populations must be treated as threatened species (see Endangered Species Act Section 10j).	<p>The references cited in Section 5.3.11.6, Chapter 5, Exhibit E of the License Application are revised to include the following reference:</p> <p>Wehausen, J.D. No Date. "Nelson Bighorn Sheep." Found online: BLM California Desert District West Mojave Habitat Conservation Plan Species Accounts, Mammals page, http://www.blm.gov/ca/st/en/fo/cdd/wemo_species_mammals.html</p> <p>Please see the Extended Narrative document for the response to NPS Comment No. 86.</p>	wildlife

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NPS Cmt 87	The NPS requests that the 47 species on the GLCA special status species wildlife listed be included as this table lacks information from GLCA.	Please see the attached Extended Narrative document for the response to comment NPS No. 87.	wildlife
NPS Cmt 88	Sage sparrow is not named Sagebursh Sparrow. Please correct.	<p>While Sage Sparrow (<i>Artimisiospiza belli</i>) was the long standing name for this species, our information shows that in 2013, Sage Sparrow was split into two species, Sagebrush Sparrow (<i>Artimisiospiza nevadensis</i>) and Bell's Sparrow (<i>Artimisiospiza belli</i>). However to enhance the species name recognition for the reader, we will use all three names in Table 5-108</p> <p>In Table 5-108, Chapter 5, Exhibit E of the License Application, the name for Sagebrush Sparrow is revised to read; Bell's/Sagebrush Sparrow (<i>Sage Sparrow</i>) <i>Artemisiospiza belli/nevadensis</i></p>	wildlife
NPS Cmt 89	Two GLCA species are not on the list, Desert night lizard which may occur in the project area, and Arizona glossy snake which does occur in the project area. Please add these species to the list.	Please see the Extended Narrative document for the response to NPS Comment No. 89.	wildlife
NPS Cmt 91	The sound levels in this section conflict with what was stated in Chapter 3. Chapter 3 cited 70 dBA at 500 ft, this says "not exceed ambient at 100 ft". The NPS requests clarification as to why noise impacts were eliminated given the discrepancy in noise decibel levels.	<p>The text comprising Section 5.3.12.2.2.1 of the Preliminary Licensing Proposal (PLP) has been replaced in the License Application filed with FERC in May 2016. The construction effects and operations and maintenance effects are discussed separately for each special status species in Section 5.3.12.2.2 - Proposed Action in Chapter 5, Exhibit E of the License Application.</p> <p>The second paragraph in Section 5.3.12.2.2.1, Mexican Spotted Owl, Construction Effects, is revised to read: Estimated peak construction noise is estimated to be 94 dBA (UBWR 2016d) with average construction noise estimated at 82 dBA, and would be considered a "point" source, which would decay at 3 dBA with doubling of distance from the noise source (FHA 1995). Traffic noise is considered a "linear" sound source and decays at approximately 4.5 dBA per doubling of distance from the source over landscape (as opposed to paved or "hard" surfaces) (FHA 1995). Noise levels at the boundary of the closest designated critical habitat would be 67 dBA (peak) and 55 dBA (average), compared to existing ambient noise levels of 70 dBA (peak) and 54 dBA (average).</p> <p>Operation, inspection and maintenance activities would not occur in designated Mexican spotted owl critical habitat. The closest surface facility to designated critical habitat would be BPS-4 (Alt.) and operation noise would decay to 30 dBA 1.2 miles from BPS-4 (Alt.), below existing ambient noise levels and two miles from the boundary of designated critical habitat. Therefore, no effects would occur on designated critical habitat from LPP operation and maintenance activities.</p>	wildlife

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NPS Cmt 92	The NPS requests additional analysis on the effects of construction on hibernating small mammals and reptiles to consider and describe the effects of digging up or crushing if work is done in winter.	<p>The text is revised to address the comment. The Section 5.3.12.2.3.2 reference in the comment involves California condor; however, the California condor section does not address small mammals or reptiles, and the text changes are made to the appropriate paragraphs in Section 5.3.12.2.2.3.</p> <p>A new sentence is inserted after the fifth sentence in the second paragraph in Section 5.3.12.2.2.3, Chapter 5, Exhibit E of the License Application and reads: Small mammals hibernating in the ROW during the winter would be more susceptible to mortality resulting from excavation or crushing during winter construction activities.</p> <p>A new sentence is inserted after the second sentence in the 11th paragraph in Section 5.3.12.2.2.3, Chapter 5, Exhibit E of the License Application and reads: Reptiles hibernating or in an inactive torpor during the winter within the ROW would be more susceptible to mortality resulting from excavation or crushing during winter construction activities.</p>	wildlife

NPS Cmt 93

The NPS requests the effects of new transmission lines on eagles to be analyzed as raptor-proofing the poles does not prevent collisions with power lines.

The requested changes in the analysis have been addressed. The seventh paragraph in Section 5.3.12.2.5.3, Chapter 5, Exhibit E of the License Application is revised to read: Electrocutation or injury by collisions with transmission line conductors or support towers could cause mortality of birds, mainly raptors. The numbers of birds killed cannot be estimated, but it would be unlikely that any species would be placed at risk. EEI's (2006, 2010) and APLIC's (2012) avian protection guidelines for transmission lines should be followed for all new aerial transmission lines. These measures would reduce the potential for electrocutions; however, collisions with transmission lines would likely occur. Many species of migratory birds are susceptible to collision with power lines, especially during inclement weather, when the lines may be harder to see (Loss et al. 2014; Manville 2005). Birds most likely to be affected are species that have a high wing load (ratio of body weight to wing area) that typically make a species less maneuverable (e.g. eagles and other broad wing raptors) (Marques et al. 2014). Additionally, foraging raptors often are searching the ground and may not see transmission towers or lines, putting them at increased risk of collisions. Effects on bald eagles are less likely to occur given the lack of foraging habitat along the proposed transmission line alignment. Effects from transmission line operation on golden eagles are more likely to occur given their observed presence in the LPP area. Potential mitigation measures for collisions with transmission lines include placement of visibility markers on transmission lines to improve avian recognition of the lines.

The references cited in Section 5.3.11.6, Chapter 5, Exhibit E of the License Application are revised to include the following references:

Loss, S.R., T. Will, and P.P. Marra. 2014. Refining estimates of bird collision and electrocution mortality at power lines in the United States. *PLOS One* 9(7): e101565.

Manville, A.M. 2005. Bird strikes and electrocutions at power lines, communication towers, and wind turbines: state of the art and state of the science – next steps toward mitigation. USDA Forest Service Gen. Tech. Rep. PSW-GTR-191. pp 1051-1064.

Marques, A.T., Batalha, H., Rodrigues, S., Costa, H., Pereira, M.J.R., Fonseca, C., Mascarenhas, M. & Bernardino, J. 2014. Understanding bird collisions at wind farms: an updated review on the causes and possible mitigation strategies. *Biological Conservation* 179: 40–52.