The South Variant Alternative would be susceptible to invasive and noxious weed infestation and subject to the same effects as described for the South Alternative in Section 5.3.10.2.1. The South Variant Alternative would not pass through any designated critical habitat for listed plant species.

5.3.10.4 Cumulative Effects

*This is a new Section 5.3.10.4.4. Section heading numbers of the remaining sections in Section 5.3.10.4 are increased accordingly.*

5.3.10.4.4 South Variant Alternative.
The South Variant Alternative would have the same cumulative effects on special status plants and habitats as described for the South Alternative in Section 5.3.10.4.1.

5.3.10.5 Unavoidable Adverse Effects

*This is a new Section 5.3.10.5.4. Section heading numbers of the remaining sections in Section 5.3.10.5 are increased accordingly.*

5.3.10.5.4 South Variant Alternative.
The South Variant Alternative would have the same unavoidable adverse effects on special status plant species and habitats as described for the South Alternative in Section 5.3.10.5.1, except the long-term unavoidable adverse effects on special status plant species and habitats from the footprint of project features would be 859 acres not revegetated following construction.

5.3.11 Wildlife Resources

5.3.11.2 Environmental Effects

5.3.11.2.2 South Alternative Construction (including Transmission System).

5.3.11.2.2.1 Wildlife Habitat Effects.
Pg. 5-419, 4th paragraph
Total wildlife habitat effects of the South Alternative construction would occur on 4,800 acres. Total shortterm wildlife habitat effects of the South Alternative construction would occur on 4,011 acres. Total longterm wildlife habitat effects of the South Alternative construction would occur on 789 acres. The South Alternative would have short-term effects on Colorado Plateau Region wildlife habitat totaling 3,668 acres. Long-term effects on Colorado Plateau Region wildlife habitat would total 503 acres. The South Alternative would have short-term effects on Mojave Desert Region wildlife habitat totaling 343 acres. Long-term effects on Mojave Desert Region wildlife habitat would total 287 acres. Wildlife habitat restoration would be implemented immediately following construction of the pipeline and penstock alignments. The areas of temporary effects would be restored and revegetated, and would regain some habitat value within two to three growing seasons. Temporary effects on wildlife habitat would not exceed significance criteria.
5.3.11.2.2.3 Wildlife Population Effects.
Pg. 5-422, 1st paragraph
The estimated area of permanent habitat effects (789 acres) is small relative to the available surrounding habitat area; much of the construction corridor is located in or adjacent to areas of existing land use or disturbance that would reduce its habitat value. Construction could cause mortality of some small mammals and reptiles that would not be able to disperse from the site. Most mammals, birds and larger reptiles would disperse from construction sites, and direct mortality would not be expected. Small animals could fall into open trenches and be buried by placement of fill or concrete. Clearing of trees and other vegetation could cause mortality of bird eggs or nestlings if performed during the nesting season; construction corridors should be cleared outside of the nesting and fledging period. Flooding of newly created reservoirs could drown small animals that would be unable to disperse from the area of inundation.

5.3.11.2.4 Existing Highway Alternative Construction (including Transmission System).

5.3.11.2.4.1 Wildlife Habitat Effects.
Pg. 5-424, 1st – 2nd paragraphs
Total wildlife habitat effects of the Existing Highway Alternative construction would occur on 4,245 acres. Total short-term wildlife habitat effects of the Existing Highway Alternative construction would occur on 3,459 acres. Total long-term wildlife habitat effects of the Existing Highway Alternative construction would occur on 786 acres. The Existing Highway Alternative would have short-term effects on Colorado Plateau Region wildlife habitat totaling 3,110 acres. Long-term effects on Colorado Plateau Region wildlife habitat would total 499 acres. The Existing Highway Alternative would have short-term effects on Mojave Desert Region wildlife habitat totaling 350 acres. Long-term effects on Mojave Desert Region wildlife habitat would total 287 acres. Wildlife habitat restoration would be implemented immediately following construction of the pipeline and penstock alignments by revegetating replaced topsoil during the growing season. Construction performed during non-growing season periods would have wildlife habitat restoration deferred until the next growing season begins. The areas of temporary effects would be restored and revegetated, and would regain some habitat value within two to three growing seasons. Temporary effects on wildlife habitat would not exceed significance criteria.

The Existing Highway Alternative alignment includes approximately 214 acres of temporary disturbance on the Kaibab-Paiute Indian Reservation, all within the Colorado Plateau Ecological Region.

5.3.11.2.4.3 Wildlife Population Effects.
Pg. 5-425, 1st paragraph
Direct effects of the Existing Highway Alternative on wildlife populations would be the same as described in Section 5.3.11.2.2.3, except the estimated area of permanent habitat effects would be 786 acres.

5.3.11.2.6 Southeast Corner Alternative Construction (including Transmission System).
Pg. 5-426, 1st – 2nd paragraphs
Total wildlife habitat effects of the Southeast Corner Alternative construction would occur on 4,775 acres. Total short-term wildlife habitat effects of the Southeast Corner Alternative construction would occur on 3,986 acres. Total long-term wildlife habitat effects of the Southeast
Corner Alternative construction would occur on 789 acres. The Southeast Corner Alternative would have short-term effects on Colorado Plateau Region wildlife habitat totaling 3,643 acres. Long-term effects on Colorado Plateau Region wildlife habitat would total 503 acres. The Southeast Corner Alternative would have short-term effects on Mojave Desert Region wildlife habitat totaling 343 acres. Long-term effects on Mojave Desert Region wildlife habitat would total 287 acres. Region wildlife habitat during construction. Wildlife habitat restoration would be implemented immediately following construction of the pipeline and penstock alignments. The areas of temporary effects would be restored and revegetated, and would regain some habitat value within two to three growing seasons. Temporary effects on wildlife habitat would not exceed significance criteria.

The Southeast Corner Alternative alignment includes approximately 76 acres of temporary disturbance on the Kaibab-Paiute Indian Reservation, all within the Colorado Plateau Ecological Region. The difference between the Southeast Corner Alternative and the South Alternative would not be material and effects would be the same as described in Section 5.3.11.2.2.1, except where the two alignments diverge since the Southeast Corner Alternative would follow the existing 500-kV transmission line across the southeast corner of the Kaibab-Paiute Indian Reservation where past disturbance has occurred.

This is a new Section 5.3.11.2.8 and Section 5.3.11.9. Section heading numbers of the remaining sections in Section 5.3.11.2 are increased accordingly.

5.3.11.2.8 South Variant Alternative Construction (including Transmission System).

The South Variant Alternative would have long-term and short-term effects on wildlife habitat, big game crucial ranges and migration routes, and wildlife populations throughout the area of potential effect. Long-term effects on wildlife resources would occur from South Variant Alternative features including the intake pump station, booster pump stations and substations, regulating tank, hydroelectric generating stations, forebay reservoir, afterbay reservoir, and permanent access roads. Short-term effects on wildlife resources would occur from construction of pipelines, penstocks, transmission lines, staging areas, and temporary access roads.

5.3.11.2.8.1 Wildlife Habitat Effects.

Total wildlife habitat effects of the South Variant Alternative construction would occur on 4,820 acres. Total short-term wildlife habitat effects of the South Variant Alternative construction would occur on 4,031 acres. Total long-term wildlife habitat effects of the South Variant Alternative construction would occur on 789 acres. The South Variant Alternative would have short-term effects on Colorado Plateau Region wildlife habitat totaling 3,688 acres. Long-term effects on Colorado Plateau Region wildlife habitat would total 503 acres. The South Variant Alternative would have short-term effects on Mojave Desert Region wildlife habitat totaling 343 acres. Long-term effects on Mojave Desert Region wildlife habitat would total 287 acres. Wildlife habitat restoration would be implemented immediately following construction of the pipeline and penstock alignments. The areas of temporary effects would be restored and revegetated, and would regain some habitat value within two to three growing seasons. Temporary effects on wildlife habitat would not exceed significance criteria. The difference between the South Variant Alternative and the South Alternative would not be material and effects would be the same as described in Section 5.3.11.2.2.1, except where the two alignments
diverge since the South Variant Alternative would extend southwest from Highway 89 near Petrified Hollow Wash to avoid the Shinarump Cliffs area.

The remaining effects on wildlife habitat would be the same as described for the South Alternative in Section 5.3.11.2.2.1.

5.3.11.2.8.2 Big Game Seasonal Ranges and Migration Route Effects.
The South Variant Alternative would have the same effects on big game crucial ranges and migration routes as described for the South Alternative in Section 5.3.11.2.2.2.

5.3.11.2.8.3 Wildlife Population Effects.
Direct effects of the South Variant Alternative on wildlife populations would be the same as described in Section 5.3.11.2.2.3.

5.3.11.2.9 South Variant Alternative Operation and Maintenance.

5.3.11.2.9.1 Wildlife Habitats.

General Wildlife Habitats.
Operations and maintenance effects would be occasional and similar to those described in Section 5.3.11.2.3.1. Impacts would not exceed the significance criteria.

5.3.11.2.9.2 Big Game Seasonal Ranges and Migration Routes.
Operations and maintenance effects would be occasional, would be the same as described in Section 5.3.11.2.3.2 and would not be significant.

5.3.11.2.9.3 Wildlife Population Effects.

Direct Effects.
South Variant Alternative operations and maintenance direct effects would be the same as describe in Section 5.3.11.2.3.3.

Indirect Effects.
South Variant Alternative operations and maintenance indirect effects would be the same as describe in Section 5.3.11.2.3.3.

5.3.11.4 Cumulative Effects

This is a new Section 5.3.11.4.4. Section heading numbers of the remaining sections in Section 5.3.11.4 are increased accordingly.

5.3.11.4.4 South Variant Alternative.
The South Variant Alternative would have the same cumulative effects on wildlife habitat as described for the South Alternative in Section 5.3.11.4.1.

5.3.11.5 Unavoidable Adverse Effects
5.3.11.5.1 South Alternative.
Pg. 5-435, 1st paragraph
The South Alternative would have short-term unavoidable adverse effects on Colorado Plateau Region and Mojave Desert Region wildlife habitat during construction. The portions of the ROW used for access roads along the South Alternative alignment would have long-term unavoidable adverse effects on Colorado Plateau Region and Mojave Desert Region wildlife habitat because the road surfaces would not be revegetated. The South Alternative features (pump stations, regulating tank, hydro stations, forebay reservoir, afterbay reservoir, substations and switchyards) would have long-term unavoidable adverse effects on Colorado Plateau Region and Mojave Desert Region wildlife habitat because the footprint of these features (789 acres) would not be revegetated following construction. Long-term disturbance of 61 acres of mule deer crucial winter range would be an unavoidable adverse effect. Long-term disturbance of 40 acres of pronghorn crucial habitat would be an unavoidable adverse effect. Construction-related mortality of small animals unable to disperse from the construction corridor would be an unavoidable adverse effect.

5.3.11.5.2 Existing Highway Alternative.
Pg. 5-435, 2nd paragraph
The Existing Highway Alternative would have the same unavoidable adverse effects on wildlife habitat as described for the South Alternative in Section 5.3.11.5.1, except the long-term unavoidable adverse effects on Colorado Plateau Region and Mojave Desert Region wildlife habitat from the footprint of project features would be 786 acres not revegetated following construction. Long-term disturbance of 13 acres of mule deer crucial winter range would be an unavoidable adverse effect. Construction-related mortality of small animals unable to disperse from the construction corridor would be an unavoidable adverse effect.

5.3.11.5.3 Southeast Corner Alternative.
Pg. 5-435, 3rd paragraph
The Southeast Corner Alternative would have short-term unavoidable adverse effects on Colorado Plateau Region and Mojave Desert Region wildlife habitat during construction. The portions of the ROW used for access roads along the Southeast Corner Alternative alignment would have long-term unavoidable adverse effects on Colorado Plateau Region and Mojave Desert Region wildlife habitat because the road surfaces would not be revegetated. The Southeast Corner Alternative features (pump stations, regulating tank, hydro stations, forebay reservoir, afterbay reservoir, substations and switchyards) would have long-term unavoidable adverse effects on 789 acres of Colorado Plateau Region and Mojave Desert Region wildlife habitat because the footprint of these features would not be revegetated following construction. Long-term disturbance of 61 acres of mule deer crucial winter range would be an unavoidable adverse effect. Long-term disturbance of 40 acres of pronghorn crucial habitat would be an unavoidable adverse effect. Construction-related mortality of small animals unable to disperse from the construction corridor would be an unavoidable adverse effect.

This is a new Section 5.3.11.5.4. Section heading numbers of the remaining sections in Section 5.3.11.5 are increased accordingly.
5.3.11.5.4 South Variant Alternative.
The South Variant Alternative would have short-term unavoidable adverse effects on Colorado Plateau Region and Mojave Desert Region wildlife habitat during construction. The portions of the ROW used for access roads along the South Variant Alternative alignment would have long-term unavoidable adverse effects on Colorado Plateau Region and Mojave Desert Region wildlife habitat because the road surfaces would not be revegetated. The South Variant Alternative features (pump stations, regulating tank, hydro stations, forebay reservoir, afterbay reservoir, access roads, substations and switchyards) would have long-term unavoidable adverse effects on 789 acres of Colorado Plateau Region and Mojave Desert Region wildlife habitat because the footprint of these features would not be revegetated following construction. Long-term disturbance of 20 acres of mule deer crucial winter range would be an unavoidable adverse effect. Long-term disturbance of 40 acres of pronghorn crucial habitat would be an unavoidable adverse effect. Construction-related mortality of small animals unable to disperse from the construction corridor would be an unavoidable adverse effect.

5.3.12 Special Status Wildlife Species

5.3.12.2 Environmental Effects

5.3.12.2.2 South Alternative.

5.3.12.2.2.1 Threatened, Endangered and Candidate Species.
Pg. 5-473, 4th paragraph
The Mojave population of the Mojave desert tortoise was surveyed in Washington County, Utah. Private land surveyed included 4,156 acres. Utah SITLA land surveyed included 923 acres. Federal land surveyed included 7,564 acres. Surveys were performed according to the USFWS protocol as provided in 2010 Preparing for Any Action That May Occur Within the Range of the Mojave Desert Tortoise (*Gopherus agassizii*) (UDWRe 2016a). The survey area is shown in Figure 5-155. Note that the USFWS has requested that new surveys be completed using current protocols prior formal Section 7 consultation. The below results are subject to change. The LPP Project corridor, whether for pipeline or transmission line construction, has a defined width of 150 feet. This construction corridor, as well as all equipment and facilities sites, and forebay and afterbay reservoirs, required 100 percent survey coverage. This coverage is achieved by one person surveying no more than a 30-foot wide belt transect. Additional transects outside of the construction corridor, referred to as buffer transects, were surveyed at 200-, 400-, and 600-meter intervals parallel to or encircling the LPP corridor and construction sites. All transect routes were surveyed to the extent possible unless precluded by private property or where impassable terrain limited access. Overall, un-surveyed lands would not be expected to provide suitable tortoise habitat, and included steep slopes adjacent to the Hurricane Cliffs; south of Highway 9 at Sheep Bridge Road, within the City of Hurricane, and adjacent to Sky Ranch Airport Community; private agricultural and ranch developments south of Highway 9 to Sand Hollow State Park, along 1500 West; and south of Highway 9 along the Honeymoon Trail (UDWRe 2016a).

5.3.12.2.2.2 Listed Nonessential Experimental Population Species.
Pg. 5-478, 8th paragraph
Construction would permanently disturb 789 acres of habitat within the LPP Project study area, but this would not be a significant effect because of the vast area available to condors for foraging in the region surrounding the study area. The South Alternative would not change the available food sources for condors. Indirect effects of construction would not be significant.

5.3.12.2.2.3 Sensitive Species and Species of Concern.

Mammals
Pg. 5-479, 5th paragraph
Overall permanent disturbance of potential wildlife habitat, 789 acres would not be sufficient to place any species at risk because of the large area of equivalent habitats surrounding the LPP Project study area. Construction disturbance of foraging areas and home ranges would be temporary and unlikely to place any species at risk.

Birds
Pg. 5-480, 3rd paragraph
Permanent habitat loss of 789 acres of potential habitat would not be sufficient to place any species survival at risk because of the large area of equivalent habitat surrounding the LPP Project study area.

Reptiles
Pg. 5-480, 6th paragraph
Reptiles would be vulnerable to construction mortality by crushing under vehicles and construction equipment. Reptile densities are not be expected to be high in the LPP Project study area because most of the alternative features would be constructed in previously disturbed habitat. Construction mortality could be mitigated by capture and relocation of reptiles immediately in the path of construction activities, removal and relocation of any reptiles observed in trenches before backfilling and searching for reptiles under parked vehicles and equipment before they are moved. The permanent disturbance of 789 acres of potential habitat would not be sufficient to place any species at risk and effects would not exceed the significance criteria.

5.3.12.2.3 Existing Highway Alternative.

5.3.12.2.3.2 Listed Nonessential Experimental Population Species.
Pg. 5-484, 1st paragraph
Effects would be similar to those described in Section 5.3.12.2.2, except that 786 acres would be permanently disturbed. Of this, much would occur in previously disturbed areas since the LPP Project alignment in the vicinity of the Kaibab-Paiute Indian Reservation would be sited along an existing highway rather than in previously disturbed areas south of the reservation.

5.3.12.2.3.3 Sensitive Species and Wildlife Species of Concern

Mammals
Pg. 5-484, 4th paragraph
Effects would be generally the same as described for the South Alternative in Section 5.3.12.2.2.3; except that construction of the penstock adjacent to and north of the Highway 389 ROW would be less likely to affect ground nesting or subterranean species than the overland corridor of the South Alternative. There would be approximately 786 acres of permanent disturbance of potential wildlife habitat. Effects on mammals would be minimal and would not exceed the significance criteria.

**Birds**

*Pg. 5-485, 1st paragraph*

Effects would be generally the same as described in Section 5.3.12.2.2.3; except that construction of the penstock adjacent to and north of the Highway 389 ROW would be less likely to affect nesting birds than the overland corridor of the South Alternative. There would be approximately 786 acres of permanent disturbance of potential wildlife habitat. Effects would be minimal and would not exceed the significance criteria.

**Reptiles**

*Pg. 5-485, 4th paragraph*

Effects would be generally the same as described in Section 5.3.12.2.2.3; except that construction of the penstock adjacent to and north of the Highway 389 ROW would be less likely to affect reptiles than the overland corridor of the South Alternative. There would be approximately 786 acres of permanent disturbance of potential wildlife habitat. Effects on reptiles would be minimal and would not exceed the significance criteria.

**Amphibians**

*Pg. 5-485, 7th paragraph*

Effects would be generally the same as described in Section 5.3.12.2.2.3; except that construction of the penstock adjacent to and north of the Highway 389 ROW would be less likely to affect amphibians than the overland corridor of the South Alternative. There would be approximately 786 acres of permanent disturbance of potential wildlife habitat. Effects would be minimal and would not exceed the significance criteria.

**5.3.12.2.3.4 Tribal Wildlife Species of Cultural Concern.**

*Pg. 5-486, 3rd paragraph*

Effects would be generally the same as described in Section 5.3.12.2.2.4; except that construction of the penstock adjacent to and north of the Highway 389 ROW would be less likely to affect species than the overland corridor of the South Alternative. There would be approximately 786 acres of permanent disturbance of potential wildlife habitat. Effects would be minimal and would not exceed the significance criteria.

**5.3.12.2.4 Southeast Corner Alternative.**

**5.3.12.2.4.3 Sensitive Species and Wildlife Species of Concern.**

**Mammals**

*Pg. 5-488, 9th paragraph*

Effects would generally be the same as described in Section 5.3.12.2.2.3; the Southeast Corner Alternative would permanently disturb approximately 789 acres of potential wildlife habitat.
Effects on mammal species of concern would be minimal and would not exceed the significance criteria.

**Birds**
**Pg. 5-489, 3rd paragraph**
Effects would be generally the same as described in Section 5.3.12.2.2.3; the Southeast Corner Alternative would permanently disturb approximately 789 acres of potential wildlife habitat. Effects on avian sensitive species or species of concern would be minimal and would not exceed the significance criteria.

**Reptiles**
**Pg. 5-489, 6th paragraph**
Effects would be generally the same as described in Section 5.3.12.2.2.3; the Southeast Corner Alternative would permanently disturb approximately 789 acres of potential wildlife habitat. Effects would be minimal and would not exceed the significance criteria.

**Amphibians**
**Pg. 5-490, 1st paragraph**
Effects would be generally the same as described in Section 5.3.12.2.2.3; the Southeast Corner Alternative would permanently disturb approximately 789 acres of potential wildlife habitat. Effects on amphibians would be minimal and would not exceed the significance criteria.

**5.3.12.2.4.4 Tribal Wildlife Species of Cultural Concern.**
**Pg. 5-490, 4th paragraph**
Effects would be generally the same as described in Section 5.3.12.2.2.4; the Southeast Corner Alternative would permanently disturb approximately 789 acres of potential habitat for tribal wildlife species of cultural concern. Effects would not exceed the significance criteria.

*This is a new Section 5.3.12.2.5. Section heading numbers of the remaining sections in Section 5.3.12.2 are increased accordingly.*

**5.3.12.2.5 South Variant Alternative.**

**5.3.12.2.5.1 Threatened, Endangered and Candidate Species.**

**Mexican Spotted Owl**

*Construction Effects*
Effects would be the same as described in Section 5.3.12.2.2.1.

*Operation and Maintenance Effects*
Effects would be the same as described in Section 5.3.12.2.2.1.

*Effects Summary*
The South Variant Alternative would not adversely affect the Mexican spotted owl and would have no effect on designated critical habitat.
Southwestern Willow Flycatcher

Construction Effects
Effects would be the same as described in Section 5.3.12.2.2.1.

Operation and Maintenance Effects
Effects would be the same as described in Section 5.3.12.2.2.1.

Effects Summary
The South Variant Alternative may affect, but is not likely to adversely affect the southwestern willow flycatcher.

Yellow-billed Cuckoo

Construction Effects
Effects would be the same as described in Section 5.3.12.2.2.1.

Operation and Maintenance Effects
Effects would be the same as described in Section 5.3.12.2.2.1.

Effects Summary
The South Variant Alternative would have no effect on the yellow-billed cuckoo. The South Variant Alternative would have no measurable effect on proposed critical habitat along the Virgin River in the St. George metropolitan area.

Mojave Desert Tortoise

Construction Effects
Effects would be the same as described in Section 5.3.12.2.2.1.

Operation and Maintenance Effects
Effects would be the same as described in Section 5.3.12.2.2.1.

Effects Summary
The South Variant Alternative would likely adversely affect the Mojave desert tortoise.

Relict Leopard Frog

Construction Effects
Effects would be the same as described in Section 5.3.12.2.2.1.

Operation and Maintenance Effects
Effects would be the same as described in Section 5.3.12.2.2.1.

Effects Summary
The South Variant Alternative would have no effect on the relict leopard frog.
Yuma Clapper Rail

Construction Effects
Effects would be the same as described in Section 5.3.12.2.2.1.

Operation and Maintenance Effects
Effects would be the same as described in Section 5.3.12.2.2.1.

Effects Summary
The South Variant Alternative would have no effect on the Yuma clapper rail.

5.3.12.2.5.2 Listed Nonessential Experimental Population Species.

California Condor

Construction Effects
Effects would be the same as described in Section 5.3.12.2.2.2.

Operation and Maintenance Effects
Effects would be the same as described in Section 5.3.12.2.2.2.

Effects Summary
The South Variant Alternative is not likely to jeopardize the nonessential experimental California condor population.

5.3.12.2.5.3 Sensitive Species and Wildlife Species of Concern.

Mammals

Construction Effects
Effects would generally be the same as described in Section 5.3.12.2.2.3; the South Variant Alternative would permanently disturb approximately 789 acres of potential wildlife habitat. Effects on mammal species of concern would be minimal and would not exceed the significance criteria.

Operation and Maintenance Effects
Effects would be the same as described in Section 5.3.12.2.2.3, would be minimal, and would not exceed the significance criteria.

Effects Summary
Construction, operation and maintenance of the South Variant Alternative facilities could cause some mortality of individual mammals, but would not exceed the significance criteria for effects on populations of mammal wildlife species of concern. Habitat effects would be minimal and would not be significant because of the large area of equivalent habitat in the surrounding region.

Birds
Construction Effects
Effects would be generally the same as described in Section 5.3.12.2.2.3; the South Variant Alternative would permanently disturb approximately 789 acres of potential wildlife habitat. Effects on avian sensitive species or species of concern would be minimal and would not exceed the significance criteria.

Operation and Maintenance Effects
Effects would be the same as described in Section 5.3.12.2.2.3, would be minimal, and would not exceed the significance criteria.

Effects Summary
Construction, operation and maintenance of the South Variant Alternative would not have significant effects on avian sensitive species or species of concern.

Reptiles

Construction Effects
Effects would be generally the same as described in Section 5.3.12.2.2.3; the South Variant Alternative would permanently disturb approximately 789 acres of potential wildlife habitat. Effects would be minimal and would not exceed the significance criteria.

Operation and Maintenance Effects
Effects would be the same as described in Section 5.3.12.2.2.3, would be minimal, and would not exceed the significance criteria.

Effects Summary
Construction, operation and maintenance of the South Variant Alternative would not have significant effects on reptile sensitive species or species of concern.

Amphibians

Construction Effects
Effects would be generally the same as described in Section 5.3.12.2.2.3; the South Variant Alternative would permanently disturb approximately 789 acres of potential wildlife habitat. Effects on amphibians would be minimal and would not exceed the significance criteria.

Operation and Maintenance Effects
Effects would be the same as described in Section 5.3.12.2.2.3, would be minimal, and would not exceed the significance criteria.

Effects Summary
Construction, operation and maintenance of the South Variant Alternative would not have significant effects on amphibian wildlife species of concern.

5.3.12.4 Cumulative Effects
5.3.12.4.4 South Variant Alternative.
The South Variant Alternative would have the same cumulative effects on special status wildlife species as described for the South Alternative in Section 5.3.12.4.1.

5.3.12.5 Unavoidable Adverse Effects

5.3.12.5.1 South Alternative.
Pg. 5-504, 7th paragraph
The South Alternative would have short-term unavoidable adverse effects on special status wildlife species and habitat during construction. The portions of the ROW used for access roads along the South Alternative alignment would have long-term unavoidable adverse effects on special status wildlife species and associated habitat because the road surfaces would not be revegetated. The South Alternative features (pump stations, regulating tank, hydro stations, forebay reservoir, afterbay reservoir, substations and switchyards) would have long-term unavoidable adverse effects on special status wildlife species and associated habitat because the footprint of these features (789 acres) would not be revegetated following construction. Construction-related mortality of special status wildlife species unable to disperse from the construction corridor would be an unavoidable adverse effect.

5.3.12.5.2 Existing Highway Alternative.
Pg. 5-505, 2nd paragraph
The Existing Highway Alternative would have the same unavoidable adverse effects on special status wildlife species as described for the South Alternative in Section 5.3.12.5.1, except that the long-term unavoidable adverse effects on special status wildlife species habitat from the footprint of project features would be 786 acres not revegetated following construction. Construction-related mortality of special status wildlife species unable to disperse from the construction corridor would be an unavoidable adverse effect.

5.3.12.5.3 Southeast Corner Alternative.
The Southeast Corner Alternative would have the same unavoidable adverse effects on special status wildlife species as described for the South Alternative in Section 5.3.12.5.1. Unavoidable adverse effects would be generally the same as those described in Section 5.3.12.5.1.

5.3.12.5.4 South Variant Alternative.
The South Variant Alternative would have the same unavoidable adverse effects on special status wildlife species as described for the South Alternative in Section 5.3.12.5.1. Unavoidable adverse effects would be generally the same as those described in Section 5.3.12.5.1.