STATE AGENCY AND ELECTED OFFICIALS COMMENTS AND RESPONSES
December 29, 2014

South Mountain Study Team
Arizona Department of Transportation
1655 West Jackson Street, MD 1266
Phoenix, Arizona 85007

RE: South Mountain (Loop 202) Freeway Final Environmental Impact Statement

Dear Study Team,

The Arizona Game and Fish Department (Department) has reviewed the Final Environmental Impact Statement (FEIS) for the South Mountain Freeway (Loop 202) and Section 4(f) Evaluation and recent errata. The Department has public trust responsibility and jurisdictional authority under Arizona Revised Statute, Title 17 (§17-102 codifies state ownership of wildlife) to manage and regulate take of fish and wildlife within the state of Arizona irrespective of land ownership, including those wildlife existing on tribal trust-status lands. We continue to express interest in land planning initiatives that may affect management of the State’s fish and wildlife resources and/or wildlife related recreation. In addition, the Department maintains authorities under the Federal Fish and Wildlife Coordination Act (FWCA) to provide federal agencies recommendations to minimize impacts to fish and wildlife in their habitats that may result from federal projects that relate to water. The FWCA is applicable to this project, due to the proposed road crossing the Salt River and numerous other washes. While the Endangered Species Act mandates certain considerations for federally protected species, the FWCA mandates that consideration is given to all other fish and wildlife species. The Department would like to provide further comments and clarification in regards to the Arizona Department of Transportation’s (ADOT) responses to the Department’s comments within the FEIS.

The Department requests ADOT work closely and consistently with state and local agencies, and the tribal entities, on projects early and throughout the process. We appreciate the invitation extended by ADOT regarding the development of design and mitigation, as stated in the FEIS, and we are committed to participating in that process. The following comments address concerns of the Department moving into that process.

The FEIS at 365 states:

“...the comments on the Draft Environmental Impact Statement contradict previous communication with the Arizona Game and Fish Department for the project. The last
The information provided by the Arizona Game and Fish Department was reviewed and considered in the analysis presented in the section, Biological Resources, in Chapter 4 of the Final Environmental Impact Statement. An example includes the addition of movement areas to Figure 4-38 on page 4-126 of the Final Environmental Impact Statement. The updated information provided by the Arizona Game and Fish Department did not change the conclusions for biological resources. We thank the Arizona Game and Fish Department for its comments; changes were included in the Final Environmental Impact Statement to provide clarification.

The analysis of secondary and cumulative impacts, including such impacts on biological resources, is discussed beginning on page 4-179 of the Final Environmental Impact Statement. Representative project-specific mitigation measures that address secondary and cumulative impacts are discussed on page 4-189. These commitments are confirmed in the Record of Decision in Table 3, beginning on page 38.

In accordance with the National Environmental Policy Act, a range of reasonable action alternatives to carry forward for further analysis was determined through application of multidisciplinary criteria in a logical, step-wise progression. Alternatives were not disposed of or dismissed without a thorough evaluation using the multidisciplinary criteria outlined in the alternatives development and screening process presented in Chapter 3 of the Draft Environmental Impact Statement. This process, which occurred early in the environmental impact statement process, was revisited and validated in the Final Environmental Impact Statement (see Figure 3-2 on page 3-4).

The information provided by the Arizona Game and Fish Department was reviewed and considered in the analysis presented in the section, Biological Resources, in Chapter 4 of the Final Environmental Impact Statement and in the Biological Evaluation. The Biological Evaluation includes up-to-date information on vegetative communities and results from available survey information; additional species surveys will be conducted prior to project initiation (see Table 3, beginning on page 38, of the Record of Decision).
3 Biology, Plants, and Wildlife

Example measures cited by the Arizona Game and Fish Department such as freeway overcrossings and 51st Avenue enhancements, while not necessary required, are actions the Arizona Department of Transportation and Federal Highway Administration would consider integrating into the project during later design if such improvements were funded by others and did not affect the freeway’s operational characteristics. This is not dissimilar to looking for transit enhancement opportunities as noted in the Final Environmental Impact Statement. Similarly, the Arizona Department of Transportation and Federal Highway Administration have committed to continued coordination with the U.S. Fish and Wildlife Service and Arizona Game and Fish Department on mitigation cited in the Final Environmental Impact Statement.

The Arizona Department of Transportation’s mitigation strategy is robust in terms of the provision of multiple wildlife crossings, fencing strategies, collision avoidance measures, and native plant protection. The Arizona Department of Transportation has committed to designing the wildlife crossings to standards for mule deer and designing additional wash crossings for wildlife passage in cooperation with the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, Gila River Indian Community Department of Environmental Quality, U.S. Army Corps of Engineers, and City of Phoenix.

Changes in land use patterns, growth or decline, in a given locale are attributable to many circumstances, events, and activities including Federal, non-Federal, and private actions. While transportation projects are not the only or primary factor in land use changes, the potential for certain transportation proposals such as this one, to influence land use is undeniable.

The Department realizes this project has no compliance obligation to address habitat impairments resulting from existing infrastructure such as the 51st Avenue travel corridor; rather, this should be seen as an opportunity to gain support from potential detractors by contributing to habitat improvements and/or enhancements that could restore sustainable populations of wildlife species to a highly viable parcel. While it is not the obligation of the proposed action to mitigate for impacts caused by other unrelated actions, it is ADOT’s responsibility under NEPA to provide an analysis and potential mitigation measures from indirect effects (40 CFR § 1508.8) and/or cumulative effects (40 CFR § 1508.7) depending on whether effects are caused by the action later in time, or if the action results in incremental effects when added to those present and reasonably foreseeable future actions. Indirect effects “may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems” (40 CFR § 1508.8).
While both the Arizona Game and Fish Department and U.S. Environmental Protection Agency note that the designated corridor is important (and is recognized as such in the section, Biological Resources, beginning on page 4-125 of the Final Environmental Impact Statement), the baseline condition of the resource is not pristine. The Arizona Game and Fish Department points out that the movement corridor between the South Mountains and the Sierra Estrella is degraded by the 51st Avenue travel corridor and that future planned development independent of the project in the areas affected will continue to inhibit wildlife movement between the South Mountains and the Sierra Estrella. To date, most of the land in the Study Area has already been developed in accordance with the City of Phoenix’s General Plan and zoning ordinance. It is assumed that such development would not be torn down to restore habitat to previous historical conditions. As documented in the section, Land Use, in Chapter 4 of the Final Environmental Impact Statement, agricultural (22 percent) and open space (11 percent) land uses in the Study Area represent only 33 percent of land area (it should be noted that the 11 percent of open space is mostly not developable because of topographic challenges and floodplain constraints), while the remainder of the area is in some form of “built” land use. Distribution of zoning further supports the conclusion: 12 percent of the Study Area is zoned for agricultural and open space uses while 88 percent is zoned for other more intensive land uses. The sections, Induced Travel and Induced Growth, beginning on pages 4-179 and page 4-182, respectively, of the Final Environmental Impact Statement, establish that the project will have little contribution to indirect effects on surrounding land use conditions.

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The Arizona Department of Transportation must prioritize the use of limited transportation project funding. When considering the use of transportation funding to construct additional structures beyond those needed to convey drainage or cross roads, canals, trails, etc., the Arizona Department of Transportation weighs factors such as potential effects on driver safety, regulatory status of species, wildlife linkage priority, the size of wildlife populations in an area, and whether crossings of the roadway are likely to occur frequently or seasonally. Using State transportation funding to provide wildlife overcrossings beyond those needed in the project design is not a priority of the project. The Arizona Department of Transportation and Federal Highway Administration have committed to enhancing the needed bridges and drainage structures to allow wildlife connectivity and providing fencing to guide wildlife to use the crossing structures at the southwest end of the South Mountains.

The Arizona Department of Transportation is willing to partner with other stakeholders to enhance connectivity. For example, a project to construct a wildlife overpass within a priority wildlife priority linkage on State Route 77 is being undertaken in conjunction with the Regional Transportation Authority and the Pima Association of Governments. The Regional Transportation Authority initiated and funded the addition of the wildlife crossing structures and fencing to an Arizona Department of Transportation widening project for the highway.

The project will not prevent wildlife from accessing the water sources identified in the comment. The Arizona Department of Transportation has committed to wildlife crossings and fencing designed for mule deer at the southwestern end of Phoenix South Mountain Park/Preserve, which will allow access to the Arizona Game and Fish Department’s water catchment. Design of drainage structures for smaller wildlife connectivity along the Pecos Road section of the freeway will allow for north-to-south movement across the freeway in those washes. The Arizona Department of Transportation has committed to discuss design of the crossings and additional mitigation that may be needed during final design (see Table 3, beginning on page 38, of the Record of Decision).
The HabiMap layer for Species of Economic and Recreational Importance is based on 13 Arizona game species and the demand and revenue generated by those species. The intent, as described in HabiMap for this layer, is to show the relative importance of that area based on variables pertaining to hunting. Because hunting is not permitted in the Phoenix metropolitan area, the Species of Economic and Recreational Importance layer does not provide specific relevant or substantial information that would have a bearing on the analysis or conclusions in the Final Environmental Impact Statement.

Tier 1a species of greatest conservation need were evaluated for likelihood of presence in the project area in the Final Environmental Impact Statement (page 4-129) and in the Biological Evaluation (page A-4 in the appendix). The HabiMap layer for Species of Greatest Conservation Need indicates the greatest potential for species richness along the western end of the South Mountains, and in proximity to the E1 Alternative, is within a small rural residential area. As the Arizona Game and Fish Department recognizes, this modeled information is at a statewide scale and, therefore, does not indicate specific verified species richness including the potential for Tier 1a species to occur in any given area identified on the layer. Threatened and endangered species and other sensitive species were addressed in the Final Environmental Impact Statement, and the species richness information as shown on the Species of Greatest Conservation Need layer would not have any affect on the conclusions in the Final Environmental Impact Statement.

The analysis presented in the Biological Resources section of Chapter 4 of the Final Environmental Impact Statement and the Biological Evaluation completed in 2014 contains an appropriate analysis of existing conditions and potential impacts based on field surveys and available literature. No further analysis is required.
The freeway will be lined with right-of-way fencing to restrict wildlife from entering the travel lanes of the freeway. The Arizona Department of Transportation has made the commitment to consider wildlife in the design of crossings and fencing (see page 4-138 of the Final Environmental Impact Statement). The fencing and crossing design will occur hand-in-hand, and determinations will be made in coordination with the Arizona Game and Fish Department, Gila River Indian Community Department of Environmental Quality, and U.S. Fish and Wildlife Service during final design. These commitments are confirmed in the Record of Decision in Table 3, beginning on page 38.
In Figure 16 on page 28 of the Record of Decision, multiuse crossing 4 is identified as being aligned with a Maricopa County trail. The remaining four locations will serve wildlife movement with limited use by Gila River Indian Community members to access the South Mountains.

The Arizona Department of Transportation and Arizona Game and Fish Department are in agreement that designing crossings for use by wildlife with limited use for Gila River Indian Community members to access the South Mountains is an acceptable way to proceed (see Arizona Game and Fish Department comment at top of next page).

The Arizona Department of Transportation has committed to include fencing along with the crossing structures to be designed in coordination with the Arizona Game and Fish Department, Gila River Indian Community Department of Environmental Quality, and U.S. Fish and Wildlife Service. These commitments are confirmed in the Record of Decision in Table 3, beginning on page 38.
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The Department’s primary concern with the concept of multi-use crossing structures is the proximity to the densely Phoenix metropolitan area. With the neighboring urban center, there is real potential for increased human use at much greater levels than the State Route 260 underpass referenced in the EIS response. With the clarification that these structures will not be accessible from the roadway (or from transportation interchanges), and will not be incorporated into the park’s trail system, the Department agrees that levels of human use associated with the cultural access by the Gila River Indian Community are not likely to preclude functionality as wildlife connectivity mitigation structures. The Department requests “limiting human use” (excepting the GRIC cultural access) be identified as a priority and carried forward in the design of infrastructure surrounding all underpasses designated for use by wildlife.

The Department continues to request overpasses where the proposed alignment interacts with the major ridgelines of South Mountain to allow for movement of larger ungulates and other wildlife species, while decreasing risk to public safety. While there is minimal documented road mortality data provided for Pecos Road, it is known that there are high numbers of coyotes, tortoise, small mammals, etc. The Department recommends survey work be conducted to better understand the numbers and to further inform the placement of underpasses. The Department has provided several examples previously of where this has been successful for both deer and bighorn sheep and more effective than multi-functional crossing. In order to design the overpass appropriately, the Department again recommends game surveys be conducted to gain a better understanding of the movement areas and numbers potentially utilizing the area. The Department provides the following discussion to inform, clarify and support the comments provided previously. Historical data supports the use of the area by bighorn sheep and mule deer. In 1997, a bighorn sheep fawn mortality was recorded on the east side of the Sierra Estrella Mountains.

According to Department data, 25 bighorn sheep were observed during survey efforts between the Estrella’s North and South Maricopa Mountains. This population of bighorn sheep is low and at risk of extirpation. In 2010, the Department conducted a standard aerial survey of the Sierra Estrella Mountains in which 8 bighorn sheep were observed and classified (4 on BLM and 4 on GRIC) resulting in an estimated population based on the observation rate for the Estrella Mountains to be a minimum of 8 bighorn sheep on the GRIC and a minimum of 8 bighorn sheep on adjacent BLM property totaling 16 estimated. This location of the mortality demonstrates the importance of maintaining connectivity of mountain ranges in this area (Buckeye Hills and Sierra Estrellas). Local radio telemetry data obtained from collared bighorn sheep in the Buckeye Hills documents that the expansive range sheep travel between mountain ranges may expand to areas of vast distances between locales. Assumptions could be made from this data that bighorn sheep within the Sierra Estrellas would travel similar distances between mountain ranges, utilizing important travel corridors. Further research and evaluation is needed. The Department has previously had and continues to have discussions of augmenting the population of bighorn sheep in the Sierra Estrella Mountains with the continued development pressures in Rainbow Valley. As such, wildlife connectivity and travel corridors will continue to be vital in enhancing and sustaining the bighorn sheep population within this area into the foreseeable future.

The Sierra Estrellas are also known to contain mule deer in low numbers and the Maricopa Mountains contain a larger population. Mule deer are known to occur on the bajadas of the Sierra Estrella Mountains in low densities on the north and east sides (pers. comm. Dave Connal, AGFD 2014). Communications with South Mountain Park staff (pers. comm. 2014), evidence of mule deer over the years has been found within the park. In 2011, a mule deer mortality was

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<td>11</td>
<td>Design</td>
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The Arizona Department of Transportation has committed to conducting surveys for the Sonoran desert tortoise and other species as determined by the Arizona Department of Transportation and Federal Highway Administration to be necessary and to continuing coordination with the Arizona Game and Fish Department (see Table 3 in the Record of Decision, beginning on page 38). The surveys for Sonoran desert tortoise are already underway and are being conducted by the Arizona Game and Fish Department. The resulting documentation will include recordings of all species observed. If other species are determined to exist in the project area and will be affected by the project, additional coordination with the Arizona Game and Fish Department will occur. Designing bridges for bat habitat is not a standard accommodation that the Arizona Department of Transportation currently provides.