

South Mountain Freeway (Loop 202)

Interstate 10 (Papago Freeway) to Interstate 10 (Maricopa Freeway)

Final Environmental Impact Statement and Section 4(f) Evaluation

Volume III: Comment Response Appendix

Submitted pursuant to
42 U.S.C. § 4332(2)(c), 49 U.S.C. § 303, and 33 U.S.C. § 1251
by the

Federal Highway Administration
and
Arizona Department of Transportation

in cooperation with the
U.S. Army Corps of Engineers
U.S. Bureau of Indian Affairs
Western Area Power Administration



PUBLIC COMMENTS ON THE SOUTH MOUNTAIN FREEWAY DRAFT ENVIRONMENTAL IMPACT STATEMENT AND SECTION 4(F) EVALUATION

The 90-day comment period on the Draft Environmental Impact Statement (DEIS) for the South Mountain Freeway began on April 26, 2013, and closed on July 24, 2013. During that period, 8,221 comments were submitted to the Arizona Department of Transportation (ADOT) and Federal Highway Administration through various media, including the ADOT project Web site, e-mails, telephone hotline, letters, and oral and written testimony.

The comment documents and responses are presented side-by-side in this appendix. Comments are organized alphabetically by the affiliation of the commenter (see Table of Contents). Anonymous comments are located at the end of the *Citizen Comments and Responses* section. Comments received after the July 24, 2013, deadline are at the end of the entire document.

The responses are structured to be comprehensive and address the content of the comments. The reader may be referred to other similar responses and/or the text in the DEIS or Final Environmental Impact Statement (FEIS); this is done to create a more concise response section and to help guide the reader to the sections of the DEIS and FEIS where the information about the content of the comment is contained.

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FEDERAL AGENCY COMMENTS AND RESPONSES

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	 United States Department of the Interior OFFICE OF THE SECRETARY Office of Environmental Policy and Compliance Pacific Southwest Region 333 Bush Street, Suite 515 San Francisco, CA 94104 IN REPLY REFER: (ER 13/0257) <i>Filed Electronically</i> 24 July 2013 Alan Hansen Team Leader, Planning, Environment, Air Quality and Right-of-Way (PEAR) USDOT-FHWA Arizona Division 4000 N. Central Avenue Phoenix, AZ 85012 Subject: Draft Environmental Impact Statement and Section 4(f) Evaluation for the Proposed South Mountain Freeway (Loop 202), Interstate 10 (Papago Freeway) to Interstate 10 Maricopa Freeway), Maricopa County, AZ Dear Mr. Hansen: Thank you for the opportunity to review the Draft Environmental Impact Statement and Draft Section 4(f) Evaluation for South Mountain Freeway (Loop 202) Phoenix, Arizona. The Department of the Interior has reviewed the document, and offers these comments for your consideration and use. SECTION 4(f) COMMENTS We acknowledge that this project will constitute direct use of public parklands and will also have adverse effects to historic properties. We further understand that you are preparing a Programmatic Agreement (PA) in consultation with the Arizona State Historic Preservation Office and other consulting parties to minimize adverse effects to historic properties. Following our review of the Section 4(f) Evaluation, we concur that there is no feasible or prudent alternative to the Preferred Alternative selected in the document, and that all measures have been taken to minimize harm to these resources. Please note however, that this concurrence is contingent upon successful completion of the PA among the consulting parties. SECTION 6(f) COMMENTS We have reviewed the subject Draft Environmental Impact Statement for any possible relationship to or conflict with the Land and Water Conservation Fund (LWCF) and the Urban Park and Recreation Recovery grant programs within the State of Arizona and have the following comment:

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1	There are Land and Water Conservation Fund (LWCF) projects within or near the study area that could be affected by this project. These include the following LWCF Grants: 04-00013, South Mountain Park 04-00552, Development of Vista Park and Acquisition South Mountain Parcel 04-00548, Acquisition - Parcel 49 Phoenix Mountain Preserve We recommend consultation directly with the official who administers the LWCF program in Arizona to determine any potential conflicts with Section 6(f)(3) of the LWCF Act (Public Law 88-578, as amended.) This section states: “No property acquired or developed with assistance under this section shall without the approval of the Secretary (of the Interior), be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only if he finds it to be in accord with the then existing comprehensive statewide outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location.” The Administrator for the LWCF program in the state of Arizona is Ms. Doris Pulsifer, Chief, Resources and Public Programs, Arizona State Parks, 1300 West Washington Street, Phoenix, Arizona 85007. Ms. Pulsifer’s phone number is 602-542-7172 and her email is dpulsifer@azstateparks.gov. We appreciate the opportunity to review this document. Should you have questions about the Section 4(f) comments, please contact Cheryl Eckhardt at 303.969.2851 and for Section 6(f) comments, please contact Kelly Pearce at 402.661.1552 Sincerely,  Patricia Sanderson Port Regional Environmental Officer cc: Director, OEPC OEPC Staff Contact: Dave Sire David Hurd, NPS Roxanne Runkel, NPS Cheryl Eckhardt, NPS Kelly Pearce, NPS

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1	Section 4(f) and Section 6(f)	The referenced Land and Water Conservation Fund projects are associated with the Phoenix South Mountain Park/Preserve. No property acquired or developed with assistance under Section 6(f) would be used for the proposed project. The proposed South Mountain Freeway would pass through the park’s southwestern edge. The portion of the park that would be used for the proposed freeway would be 31.3 acres of the park’s 16,600 acres (0.2 percent). During the design phase, the Arizona Department of Transportation would consult directly with the City of Phoenix to identify and purchase replacement land. Replacement land would not exceed a 1:1 ratio unless the Arizona Department of Transportation and City of Phoenix determine jointly that exceeding the 1:1 ratio would be in the best interests of both parties (see page 5-23 of the Final Environmental Impact Statement).

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	 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX 75 Hawthorne Street San Francisco, CA 94105-3901 JUL 23 2013 OFFICE OF THE REGIONAL ADMINISTRATOR Karla Petty Arizona Division Administrator Federal Highway Administration 4000 North Central Avenue, Suite 1500 Phoenix, AZ 85012 Subject: South Mountain Freeway Project, Maricopa County, Arizona [CEQ#20130104] Dear Ms. Petty, The U.S. Environmental Protection Agency has reviewed the Draft Environmental Impact Statement (DEIS) for the South Mountain Freeway Project. Our review and comments are provided pursuant to the National Environmental Policy Act, the Council on Environmental Quality Regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. As stated in the DEIS, the South Mountain Freeway Project is a proposal to build a new 8-lane freeway extending approximately 22 to 24 miles from the Interstate 10 and Santan Freeway interchange westward through the community of Ahwatukee, paralleling the Gila River Indian Community (GRIC) border. The DEIS has identified a preferred alternative which is estimated to displace 845 housing units, including 680 multifamily units and 165 single family residences. The project represents a new highway alignment in a heavily urbanized area currently designated as nonattainment for particulate matter less than 10 microns in diameter (PM10). It is therefore critically important that potential impacts to air quality be accurately analyzed, disclosed, and reduced as much as possible. The DEIS does not provide the information needed to assess the potential significance of the air quality impacts of the proposed action. In view of the area's current designation as nonattainment for PM10, it is essential to accurately assess and disclose potential PM10 hotspot impacts, as well as determine whether the project meets the transportation conformity requirements of the Clean Air Act. The Act and its implementing regulations provide that a project may not cause or contribute to any new localized violation of a national ambient air quality standard (NAAQS), increase the frequency or severity of any existing violations, or delay timely attainment of the NAAQS (CAA section 176(c)(1)(B) and 40 CFR 93.116(a)). The analysis found in the DEIS does not provide the information necessary to make an accurate determination of PM10-related impacts. It also does not sufficiently address other potential air quality issues of concern. The EPA is available to work with FHWA and other agencies to complete needed analyses as this effort moves forward. The DEIS presents no stand-alone emissions analyses of the portion of the project that introduces new general purpose lanes, despite indications from the carbon monoxide (CO) hotspot analysis that <i>Printed on Recycled Paper</i>

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1		The information in the cover letter and introduction is noted. Responses to specific comments are provided on the following pages.

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	concentrations of criteria pollutants will increase relative to current levels, along with increased emissions of mobile source air toxics (MSATs). The potential increase indicated by the analysis would occur despite the fact that per-vehicle emissions are declining substantially over time. Instead, the DEIS presents an estimated value of emissions that combines the impact of the new freeway alignment with emissions from the adjacent, and existing, I-10 freeway. This methodology does not provide the information needed to disclose, analyze and potentially mitigate the actual emissions anticipated from a new highway segment. Additionally, we believe the analysis of congestion and emissions impacts from the No Action alternative includes estimates of congestion and vehicle miles traveled (VMT) that are higher than appropriate considering relevant facts and analysis. As a result, the relative benefits of all Action alternatives when compared to a future No Action alternative are likely to be overstated. We also note that no air toxics risk assessment has been provided, even though there is a documented history of local public concern and requests to ADOT and FHWA for analysis of the potential health effects from the proposed new freeway. We do not believe the reasoning provided in the DEIS for not providing such an assessment is compelling, especially in light of the history of requests for such analysis. Risk assessments for air toxics from vehicle traffic have been included in many published studies as well as in EISs for other projects. EPA has emission and air quality models that can be used to predict concentrations of air toxics at receptors near the project, and we would be happy to assist ADOT and FHWA in using the models, which are available on EPA's web site. Based upon this lack of information important to analyzing the project's potentially significant impacts on air quality, EPA has rated the South Mountain Freeway DEIS as "3 – Inadequate Information" (see Enclosure 1: "Summary of Rating Definitions and Follow-Up Action"). EPA believes the following information would serve as the basis for a robust and meaningful air quality analysis: 1) Assessment and disclosure of potential PM10 hotspot impacts and confirmation of whether the project meets the Clean Air Act's transportation conformity requirements; 2) Emissions analyses that present the emissions of the South Mountain Freeway corridor separate from those of I-10, along with updated traffic forecasting for the No Action alternative; and 3) A robust air toxics risk assessment that addresses potential health effects from the proposed new freeway. We recommend this information be circulated in a Supplemental DEIS for public comment, in accordance with NEPA and CEQ's NEPA Implementation Regulations. EPA respectfully requests the opportunity to review this information and provide ADOT and FHWA our feedback before a Supplemental DEIS is published. In the attached detailed comments, we also provide recommendations regarding the assessment of impacts to children's health, environmental justice, aquatic resources and other issues we recommend be addressed in the NEPA document. We appreciate the opportunity to review this DEIS and look forward to working with ADOT and FHWA to address the issues outlined in this letter. If you have any questions, please refer staff to Clifton Meek at (415) 972-3370 or to Angeles Herrera, Associate Director in our Communities and Ecosystems Division, at 415-972-3144. Please send a copy of the Supplemental DEIS to this office (mail code CED-2) when it is electronically filed with our Washington, D.C. office. 2

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	Sincerely,  Jared Blumenfeld Enclosures (1) Summary of EPA Rating Definitions (2) EPA's detailed comments on the South Mountain Freeway DEIS cc via email: Alan Hansen, Federal Highway Administration Rebecca Yedlin, Federal Highway Administration John Halikowski, Arizona Department of Transportation Ralph Ellis, Arizona Department of Transportation Chaun Hill, Arizona Department of Transportation Kathleen Tucker, U.S. Army Corps of Engineers Kelly Wolff-Krauter, Arizona Game and Fish Department Steve Spangle, U.S. Fish and Wildlife Service Ondrea Barber, Gila River Indian Community Dennis Smith, Maricopa Association of Governments 3

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	SUMMARY OF EPA RATING DEFINITIONS This rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the EIS. ENVIRONMENTAL IMPACT OF THE ACTION <i>"LO" (Lack of Objections)</i> The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal. <i>"EC" (Environmental Concerns)</i> The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts. <i>"EO" (Environmental Objections)</i> The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts. <i>"EU" (Environmentally Unsatisfactory)</i> The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ. ADEQUACY OF THE IMPACT STATEMENT <i>Category 1" (Adequate)</i> EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information. <i>"Category 2" (Insufficient Information)</i> The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS. <i>"Category 3" (Inadequate)</i> EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ. *From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

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	U.S. EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE SOUTH MOUNTAIN FREEWAY PROJECT, MARICOPA COUNTY, ARIZONA, JULY 23, 2013 <u>Air Quality</u> 2 A new 22- to 24- mile 8-lane freeway in the greater Phoenix area has the potential to negatively affect regional air quality, which is particularly important in light of the existing air quality challenges facing Phoenix and recent efforts to address PM10 undertaken by the Maricopa Association of Governments, Maricopa County Air Quality Department, and Arizona Department of Environmental Quality. Portions of Maricopa County (Phoenix PM10 nonattainment area) are federally designated as serious nonattainment for the 1987 PM10 NAAQS. Currently, the area is violating the 24 -hour PM10 NAAQS of 150 µg/m3. Further, while Maricopa County is currently designated attainment/unclassifiable for the 2006 24-hour and 1997 annual PM2.5 NAAQS of 35 µg/m3 and 15 µg/m3, respectively, monitors in the Phoenix area measure concentrations that approach the new 2012 annual PM2.5 NAAQS of 12 µg/m3. Moreover, the Phoenix area is federally designated as “marginal” nonattainment area for the 2008 Ozone NAAQS and continues to violate the 8-hour Ozone NAAQS of 0.075 ppm. Portions of Maricopa County are also maintenance for the CO NAAQS. Therefore, it is critical that the project’s assessment of potential air quality impacts be accurate and thorough. As described below, EPA provides comments and recommendations concerning our finding that the DEIS did not adequately assess and identify potential air quality impacts from the new proposed freeway. Transportation Conformity As the project is both 1) located in a PM10 nonattainment area that continues to experience exceedances of the PM10 NAAQS, and 2) needs a PM10 hot-spot analysis according to the transportation conformity regulation at 40 CFR 93.123, it is critical to accurately assess and identify potential PM10 hotspot impacts, as well as determine whether or not the project meets transportation conformity requirements found in the Clean Air Act. However, the DEIS does not do so adequately, and EPA has identified substantial deficiencies in the current draft analysis that preclude the ability to determine whether the project complies with transportation conformity requirements. First, since the analysis presented is a qualitative one, rather than a quantitative one, the DEIS should clarify when the analysis started and whether the analysis was begun during the grace period for quantitative analyses.¹ Furthermore, the DEIS seems to indicate that the years 2020 and 2035 are being examined but does not clearly explain why these years are chosen for analysis. Section 93.116(a) of the transportation conformity rule requires that PM hot-spot analyses consider the full time frame of an area’s transportation plan. To meet this requirement and the general requirements in Section 93.123(c)(1), hot-spot analyses should include the year(s) within the transportation plan during which peak emissions from the project are expected and any new NAAQS violation or worsening of an existing violation would most likely occur due to the impacts of the project and background concentrations in the project area. While the DEIS provides some information about increases in vehicles, information about total numbers of vehicles and the numbers of diesel trucks on the proposed highway is not easily found in the narrative. Complete traffic data for the proposed project should be included in a PM hot-spot analysis, regardless of whether the analysis is qualitative or quantitative. This section of the DEIS does 1 The grace period for using MOVES for quantitative PM hot-spot analyses has ended (i.e., any new analyses begun after December 20, 2012, must be quantitative and rely on MOVES) (December 20, 2010, 75 FR 79370)
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2	Air Quality	The first sentence of the detailed comments states, “A new 22- to 24-mile 8-lane freeway in the greater Phoenix area has the potential to negatively affect regional air quality.” The Clean Air Act requires that transportation plans, programs, and projects that are developed, funded, or approved by departments of transportation and metropolitan planning organizations will not cause new or worsen existing violations of certain transportation-related National Ambient Air Quality Standards and will not delay timely attainment of any National Ambient Air Quality Standards or any required interim emissions reductions or milestones. The U.S. Environmental Protection Agency issued the transportation conformity regulations (40 Code of Federal Regulations § 93) to implement the Clean Air Act requirements. The conformity regulations require that the metropolitan planning organization’s transportation plan and Transportation Improvement Program must include the specific federal projects in the regional emissions analysis that must not exceed a certain emissions level for the area. As noted in the Final Environmental Impact Statement on page 4-76, the Preferred Alternative is included in the Maricopa Association of Governments’ conforming plan and program. The Preferred Alternative has complied with all requirements related to regional emissions required by the Clean Air Act and 40 Code of Federal Regulations § 93 and has demonstrated that it would not “negatively affect regional air quality.”

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	not include the average daily traffic (ADT) of the new highway, or the number of trucks within overall traffic volumes. Without this information clearly presented, it is difficult to assess whether the air quality monitor chosen as the comparison for the draft qualitative PM hot-spot analysis represents the expected traffic from the project. The DEIS should state which method from the 2006 EPA-FHWA PM qualitative guidance was used, (i.e., “Comparison to another location with similar characteristics,” from Section 4.1 A of the 2006 guidance).² Page 4-68 of the DEIS states that the monitoring locations used for the PM10 qualitative analysis were the Central Phoenix and the Greenwood monitoring sites because they “most closely resemble the characteristics of the Buckeye Road and Baseline Road Interchanges in 2035.” This choice of monitoring sites requires further explanation. When comparing the project location to other monitoring locations in the area, the Buckeye monitor may better represent project characteristics such as nearby traffic activity and surrounding land use. Given the contribution of fugitive dust sources to the concentrations of PM10, the monitors referenced in the analysis may underestimate fugitive dust present at the source as they appear to represent central Phoenix, with little proximity to the arid land surfaces near the proposed project. In addition, the draft qualitative PM10 hot-spot analysis does not address whether transportation-related construction emissions should be considered in the analysis. Section 93.123(c)(5) of the conformity rule states that construction-related PM emissions due to a particular project are not required to be included in a hot-spot analysis if such emissions are considered temporary (i.e., emissions which occur only during the construction phase and last five years or less at any individual site). It is unclear whether the current draft analysis has met this requirement or whether the period of construction and the emissions that would be generated were considered in the selection of analysis years for this project. Similar issues regarding the MOVES grace period and the analysis years apply for the CO analysis included in the DEIS. It is unclear from the DEIS when the project-level CO analysis started in relation to the grace period for the latest version of the MOVES model (MOVES2010). The DEIS states that the CO analysis was performed for the existing condition (2010) and for the action and No-Action alternatives in the design year (2035). However, the year of peak emissions must be examined in a hot-spot analysis, which is not necessarily the design year. Given the magnitude of the proposed project and its potential to negatively affect regional and local air quality, we provide the following recommendations: Recommendations: 3 Address the deficiencies in the current qualitative PM10 hot-spot analysis, and demonstrate how a revised qualitative analysis complies with CAA conformity requirements for the PM10 NAAQS. Clearly explain and document how the qualitative analysis complies with applicable requirements of the CAA and transportation conformity regulations for conducting a hot-spot analysis. Completing a quantitative PM hot-spot analysis that meets applicable requirements and is fully documented is an option that continues to be available as well. EPA guidance for a quantitative PM analysis is available and can be used.³ EPA is available to coordinate with ² “Transportation Conformity Guidance for Qualitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas,” EPA420-B-06-902, March 2006. ³ See http://www.epa.gov/otaq/stateresources/transconf/policy/420b10040.pdf for details on completing such analyses.

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3	Air Quality	The U.S. Environmental Protection Agency’s detailed comments summarize the requirements for project-level conformity and imply that they should have been addressed in the Draft Environmental Impact Statement. Section 93.104(d) of the conformity regulations states that a project-level conformity determination is required before a project is adopted, accepted, approved, or funded. To clarify this point, the Federal Highway Administration in May 2003 issued guidance on <i>Clarification of Transportation Conformity Requirements for FHWA/FTA Projects Requiring Environmental Impact Statements</i>, stating that projects that are evaluated through an environmental impact statement process are encouraged to include a project-level conformity determination in the Final Environmental Impact Statement, but a final conformity determination is required before the record of decision is signed. (This guidance is posted on the U.S. Environmental Protection Agency’s Web site at <epa.gov/otaq/stateresources/transconf/policy/dot052003.pdf>.) The U.S. Environmental Protection Agency’s comments provide detailed information on the required content for the project-level conformity determination; these comments do not reflect a shortcoming with respect to the Draft Environmental Impact Statement since no project-level conformity documentation is required to be included in the Draft Environmental Impact Statement. 40 Code of Federal Regulations § 93.111(c) was followed to conduct a qualitative analysis for particulate matter (PM₁₀) for the Preferred Alternative. This analysis complied with National Environmental Policy Act requirements for the development of the Draft Environmental Impact Statement. In December 2010, the U.S. Environmental Protection Agency established transportation conformity guidance for performing quantitative particulate matter (PM_{2.5} and PM₁₀) hot-spot analyses for transportation projects and established a 2-year grace period. U.S. Environmental Protection Agency conformity guidance continues to allow qualitative particulate matter (PM₁₀) hot-spot conformity analyses for analyses that were started before or during the grace period and if the final environmental document for the project is issued no more than 3 years after issuance of the draft environmental document. A particulate matter (PM₁₀) qualitative analysis was performed for this project because the initial air quality technical analysis report for the proposed action was produced in October 2005. The Final Environmental Impact Statement has been updated with a quantitative analysis for particulate matter (PM₁₀) to ensure that a state-of-the-art analysis is completed for the Preferred Alternative. The results of the analysis are summarized in the prologue to the Final Environmental Impact Statement (page xiii) and are more fully described beginning on page 4-68 of the Final Environmental Impact Statement and in Section 3 of the air quality technical report (see sidebar on page 4-2 of the Final Environmental Impact Statement for information on how to review the report). Thus, the particulate matter (PM₁₀) analysis demonstrated that the proposed freeway would not contribute to any new localized violations, increase the frequency or severity of any existing violation, or delay timely attainment of the National Ambient Air Quality Standards or any required interim emissions reductions or other milestones.

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4	ADOT and FHWA through interagency consultation to confirm use of accurate modeling methodology, assumptions, and data for the analysis. Clearly indicate what the year(s) of peak emissions is expected to be, including supporting information for why that year(s) will result in peak emissions. Include a table with 2020 total ADT, 2020 diesel truck numbers, 2035 ADT, and 2035 diesel truck numbers, or other year(s) where peak emissions are expected. Provide complete traffic information for the new project and provide the source of this data, or provide a page number if this data is found elsewhere in the DEIS.
5	Clarify, including a specific date, when the project-level CO and PM10 hot-spot analyses began.
6	- EPA believes this is a project of local air quality concern that needs a PM10 hot-spot analysis, but we recommend additional documentation in the conformity section. Discuss why, for PM10, this is a “project of air quality concern” under 40 CFR 93.123(b)(1), including a reference to the number of diesel vehicles expected on the freeway in the analysis year (s) of peak emissions. - Clarify which method from the 2006 EPA-DOT PM qualitative guidance was used, i.e., “Comparison to another location with similar characteristics,” from Section 4.1 A of the 2006 guidance. If this method was relied on, provide additional discussion of how the location selected for comparison represents the proposed project. - As stated in the Air Quality Technical Report provided to our agency on June 15, 2013, ADOT and FHWA will be completing a “final transportation conformity determination” prior to releasing the Final EIS. EPA recommends initiating interagency consultation with our agency prior to the development of the draft transportation conformity analysis, as we believe consultation with EPA prior to the draft analysis will allow for important feedback regarding analysis and methodology. - In addition, due to the extended construction phase of the project, additional explanation and documentation is needed that 40 CFR 93.123(c)(5) is met. Emissions Analyses and Traffic Forecasting The air quality impacts presented in the DEIS for the entire alignment of the South Mountain Freeway corridor are not adequately assessed. The analysis incorporated existing I-10 emissions with emissions anticipated from the project into a “sub-area” which does not permit a clear understanding of emissions from the new freeway alignment, separate from the current setting. For example, the emission trends presented in Chapter 4 convey the conclusion that the preferred alternative reduces emissions throughout the study area. However, the DEIS presents no emissions analyses of the South Mountain Freeway corridor itself, despite indications from the CO hotspot analyses (tables 4-31 and 4-32) that concentrations of criteria pollutants along the Pecos Road corridor will increase above current levels (in spite of falling CO emission factors over time), and indications that MSAT emissions will be higher in the future. Since the South Mountain Freeway corridor is the area to be most heavily affected, not presenting the emissions along the corridor prevents the public and decisionmakers from gaining a clear understanding of the extent of impacts from the different Alternatives and the potential basis for reducing impacts. Recommendations: - Emissions analyses should be revised with the South Mountain Freeway corridor modeled independently of I-10 and other roads.

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4	Air Quality	As noted on page 4-76 of the Final Environmental Impact Statement, the year of highest particulate matter (PM ₁₀) emissions is expected to be the year of highest vehicle miles traveled, 2035. According to the Maricopa Association of Governments <i>2012 Five Percent Plan for Attainment of the PM-10 Standard</i> for the Maricopa County Nonattainment Area, the largest single source category is paved road dust, including track-out, at 20 percent. By contrast, on-road mobile vehicle exhaust, tire wear, and brake wear contribute 6 percent. The relative contribution of these emissions is expected to represent about the same contribution in the future; therefore, the highest projected vehicle miles traveled occur in the design year, 2035. The analysis year(s) was determined through the process established by the Arizona Department of Transportation interagency consultation procedures [40 Code of Federal Regulations § 93.105(c)(1)(i)]. The selection of 2035 as the peak year of emissions is appropriate. Vehicle miles traveled for 2025 and 2035 may be found in Table 4-36 on page 4-81 of the Final Environmental Impact Statement. The traffic information used in the modeling was obtained from the Maricopa Association of Governments travel demand model.
5	Air Quality	The air quality analysis for the project, including the particulate matter (PM ₁₀) hot-spot analysis, began in the summer of 2005. The initial air quality technical report, which included discussions of both particulate matter (PM ₁₀) and carbon monoxide, was completed in October 2005 (see sidebar on page 4-2 of the Final Environmental Impact Statement for information on how to review the report).
6	Air Quality	The transportation conformity rule [40 Code of Federal Regulations § 93.123(b)(1)(i)] defines projects of local air quality concern as new highway projects that have a significant number of diesel vehicles and expanded highway projects that have a significant increase in the number of diesel vehicles. According to the Draft Environmental Impact Statement page 3-19, annual average daily traffic on the Preferred Alternative would range from 120,000 to 175,000 vehicles per day. Revised forecasts provided by the Maricopa Association of Governments and presented in the Final Environmental Impact Statement page 3-19 confirm that annual average daily traffic in some areas would range from approximately 117,000 to 190,000 vehicles per day and projected heavy diesel trucks would range from approximately 3,800 to 17,000 per day. Because this would be a new facility with approximately 3,800 to 17,000 diesel trucks per day, it was determined that this is a project of local air quality concern and a quantitative particulate matter (PM ₁₀) hot-spot analysis was conducted for the Final Environmental Impact Statement.

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	ADOT and FHWA through interagency consultation to confirm use of accurate modeling methodology, assumptions, and data for the analysis. - Clearly indicate what the year(s) of peak emissions is expected to be, including supporting information for why that year(s) will result in peak emissions. Include a table with 2020 total ADT, 2020 diesel truck numbers, 2035 ADT, and 2035 diesel truck numbers, or other year(s) where peak emissions are expected. Provide complete traffic information for the new project and provide the source of this data, or provide a page number if this data is found elsewhere in the DEIS. - Clarify, including a specific date, when the project-level CO and PM10 hot-spot analyses began. - EPA believes this is a project of local air quality concern that needs a PM10 hot-spot analysis, but we recommend additional documentation in the conformity section. Discuss why, for PM10, this is a “project of air quality concern” under 40 CFR 93.123(b)(1), including a reference to the number of diesel vehicles expected on the freeway in the analysis year (s) of peak emissions. - Clarify which method from the 2006 EPA-DOT PM qualitative guidance was used, i.e., “Comparison to another location with similar characteristics,” from Section 4.1 A of the 2006 guidance. If this method was relied on, provide additional discussion of how the location selected for comparison represents the proposed project. - As stated in the Air Quality Technical Report provided to our agency on June 15, 2013, ADOT and FHWA will be completing a “final transportation conformity determination” prior to releasing the Final EIS. EPA recommends initiating interagency consultation with our agency prior to the development of the draft transportation conformity analysis, as we believe consultation with EPA prior to the draft analysis will allow for important feedback regarding analysis and methodology. - In addition, due to the extended construction phase of the project, additional explanation and documentation is needed that 40 CFR 93.123(c)(5) is met. Emissions Analyses and Traffic Forecasting The air quality impacts presented in the DEIS for the entire alignment of the South Mountain Freeway corridor are not adequately assessed. The analysis incorporated existing I-10 emissions with emissions anticipated from the project into a “sub-area” which does not permit a clear understanding of emissions from the new freeway alignment, separate from the current setting. For example, the emission trends presented in Chapter 4 convey the conclusion that the preferred alternative reduces emissions throughout the study area. However, the DEIS presents no emissions analyses of the South Mountain Freeway corridor itself, despite indications from the CO hotspot analyses (tables 4-31 and 4-32) that concentrations of criteria pollutants along the Pecos Road corridor will increase above current levels (in spite of falling CO emission factors over time), and indications that MSAT emissions will be higher in the future. Since the South Mountain Freeway corridor is the area to be most heavily affected, not presenting the emissions along the corridor prevents the public and decisionmakers from gaining a clear understanding of the extent of impacts from the different Alternatives and the potential basis for reducing impacts. Recommendations: - Emissions analyses should be revised with the South Mountain Freeway corridor modeled independently of I-10 and other roads.
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7	Air Quality	This comment is applicable only to qualitative particulate matter (PM ₁₀) hot-spot analyses. Although a particulate matter (PM ₁₀) qualitative analysis was included in the Draft Environmental Impact Statement, a quantitative particulate matter (PM ₁₀) hot-spot analysis was completed for the Final Environmental Impact Statement in accordance with the U.S. Environmental Protection Agency’s 2013 <i>Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas</i> . See page 4-76 of the Final Environmental Impact Statement and Section 3 of the air quality technical report for more information (see sidebar on page 4-2 of the Final Environmental Impact Statement for information on how to review the report).
8	Air Quality	The transportation conformity determination reflected on page 4-76 of the Final Environmental Impact Statement is consistent with the <i>Maricopa Association of Governments Conformity Analysis for the FY 2014-2018 Transportation Improvement Program and the 2035 Regional Transportation Plan</i> , January 2014 (see Final Environmental Impact Statement Appendix 4-3) and the project-level particulate matter (PM ₁₀) hot-spot analysis. The U.S. Environmental Protection Agency was a consulting party in the development of the transportation conformity processes; the U.S. Environmental Protection Agency had the opportunity to comment on the carbon monoxide and particulate matter (PM ₁₀) analyses as part of its comments on the Draft Environmental Impact Statement. Subsequent to issuance of the Draft Environmental Impact Statement, the U.S. Environmental Protection Agency was provided an opportunity to review the particulate matter (PM ₁₀) analysis protocol for the Final Environmental Impact Statement, was consulted on background concentrations for the particulate matter (PM ₁₀) analysis, and was provided an opportunity to review and comment on the air quality technical report and the modeling files and assumptions used in the Final Environmental Impact Statement carbon monoxide and particulate matter (PM ₁₀) analyses.
9	Air Quality	The transportation conformity rule in 40 Code of Federal Regulations § 93.123(c) (5) states that hot-spot analyses are not required to consider construction-related activities that cause temporary increases in emissions. Temporary increases are defined as those that occur only during the construction phase and last 5 years or less at any individual site. The project is identified in the Fiscal Year 2014–2018 Transportation Improvement Program and the 2035 <i>Regional Transportation Plan</i> using several different project identification numbers by construction segment (47518, 43086, 43087, 11305, 15671, 19029, 17193, 6458, 1790, 6919, and 47857). The Arizona Department of Transportation is evaluating construction delivery methods for the proposed freeway. One concept is to deliver it as a single design-build project. This method would expedite the construction duration for the entire project to around 3 to 3.5 years. Another concept would be to deliver the project in a more traditional method, breaking the 22-mile corridor into nine segments (each 1 to 3 miles long) and constructing them in phases. Each segment would be under construction for 1 to 3 years and the total construction duration for the entire corridor would be 5 to 6 years. A discussion of construction implementation is provided beginning on page 3-59 of the Final Environmental Impact Statement. Any particular area of the Preferred Alternative would not be expected to see construction activities beyond an approximate 2-year period; therefore, the construction effects described above would be temporary and would not require additional analysis.

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	ADOT and FHWA through interagency consultation to confirm use of accurate modeling methodology, assumptions, and data for the analysis. - Clearly indicate what the year(s) of peak emissions is expected to be, including supporting information for why that year(s) will result in peak emissions. Include a table with 2020 total ADT, 2020 diesel truck numbers, 2035 ADT, and 2035 diesel truck numbers, or other year(s) where peak emissions are expected. Provide complete traffic information for the new project and provide the source of this data, or provide a page number if this data is found elsewhere in the DEIS. - Clarify, including a specific date, when the project-level CO and PM10 hot-spot analyses began. - EPA believes this is a project of local air quality concern that needs a PM10 hot-spot analysis, but we recommend additional documentation in the conformity section. Discuss why, for PM10, this is a “project of air quality concern” under 40 CFR 93.123(b)(1), including a reference to the number of diesel vehicles expected on the freeway in the analysis year (s) of peak emissions. - Clarify which method from the 2006 EPA-DOT PM qualitative guidance was used, i.e., “Comparison to another location with similar characteristics,” from Section 4.1 A of the 2006 guidance. If this method was relied on, provide additional discussion of how the location selected for comparison represents the proposed project. - As stated in the Air Quality Technical Report provided to our agency on June 15, 2013, ADOT and FHWA will be completing a “final transportation conformity determination” prior to releasing the Final EIS. EPA recommends initiating interagency consultation with our agency prior to the development of the draft transportation conformity analysis, as we believe consultation with EPA prior to the draft analysis will allow for important feedback regarding analysis and methodology. - In addition, due to the extended construction phase of the project, additional explanation and documentation is needed that 40 CFR 93.123(c)(5) is met. Emissions Analyses and Traffic Forecasting The air quality impacts presented in the DEIS for the entire alignment of the South Mountain Freeway corridor are not adequately assessed. The analysis incorporated existing I-10 emissions with emissions anticipated from the project into a “sub-area” which does not permit a clear understanding of emissions from the new freeway alignment, separate from the current setting. For example, the emission trends presented in Chapter 4 convey the conclusion that the preferred alternative reduces emissions throughout the study area. However, the DEIS presents no emissions analyses of the South Mountain Freeway corridor itself, despite indications from the CO hotspot analyses (tables 4-31 and 4-32) that concentrations of criteria pollutants along the Pecos Road corridor will increase above current levels (in spite of falling CO emission factors over time), and indications that MSAT emissions will be higher in the future. Since the South Mountain Freeway corridor is the area to be most heavily affected, not presenting the emissions along the corridor prevents the public and decisionmakers from gaining a clear understanding of the extent of impacts from the different Alternatives and the potential basis for reducing impacts. Recommendations: - Emissions analyses should be revised with the South Mountain Freeway corridor modeled independently of I-10 and other roads.
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10	Air Quality	Under the Federal Highway Administration’s December 2012 <i>Interim Mobile Source Air Toxics (MSAT) Guidance</i>, mobile source air toxics emissions assessments in the agency’s National Environmental Policy Act documents are designed to evaluate emissions changes attributable to the project in question plus other roadways affected by the project (e.g., where traffic volumes would change if the project were built). The reason for this approach is to capture changes in emissions attributable to the project within the Study Area, which is a more reliable indicator of potential changes in health risk than estimating changes in emissions on just the Preferred Alternative alone. The Draft Environmental Impact Statement included an overall project study area, along with two “subareas” reflecting the eastern and western ends of the project corridor, in an attempt to address public concerns about potential emissions changes. The U.S. Environmental Protection Agency states that “not presenting the emissions along the corridor prevents the public and decision makers from gaining a clear understanding of the extent of impacts from the different Alternatives and the potential basis for reducing impacts.” In addition to the information above, reporting emissions for the corridor alone would not provide an understanding of impacts because there is no “emissions budget” for the corridor that defines an acceptable level of emissions and no other guideline to help the Federal Highway Administration, U.S. Environmental Protection Agency, or the public to determine whether a given amount of emissions represents a potential health risk. Likewise, an emissions estimate for the corridor itself does not help decision makers determine whether mitigation resources should be directed toward reducing corridor emissions or be applied to some more pressing environmental impact. Increases in traffic volumes attributable to a project do not necessarily result in an increase in emissions over time because the U.S. Environmental Protection Agency’s emissions control regulations and fleet turnover play an important role. In the U.S. Environmental Protection Agency’s MOVES model, emissions rates for mobile source air toxics drop by 80 to 90 percent between 2012 and 2025, and MOBILE6.2 estimated a similar reduction. The effects of this are apparent from the mobile source air toxic analysis conducted for the Final Environmental Impact Statement; in the mobile source air toxics study area, total mobile source air toxics emissions are estimated to decline by more than 80 percent even though traffic is expected to increase by 47 percent (Final Environmental Impact Statement Table 4-36 on page 4-81).
11	Air Quality	While the Final Environmental Impact Statement does not produce emissions estimates for the Preferred Alternative itself, the carbon monoxide analysis presented on page 4-65 of the Draft Environmental Impact Statement and updated on page 4-75 of the Final Environmental Impact Statement represents projected carbon monoxide concentrations along the project corridor, including those proposed interchange locations along the Preferred Alternative. This also applies to the particulate matter (PM₁₀) hot-spot analysis discussed on page 4-76 of the Final Environmental Impact Statement. Both of these analyses demonstrate that the National Ambient Air Quality Standards would not be exceeded at worst-case locations along the project corridor. The mobile source air toxic analysis presented beginning on page 4-70 of the Draft Environmental Impact Statement and updated beginning on page 4-77 of the Final Environmental Impact Statement is an estimated inventory of mobile source air toxic emissions for the entire Study

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11	- Emissions trends from the South Mountain Freeway corridor should be presented, by themselves, in addition to emissions along other road links (e.g., I-10). Chapters 1 and 4 of the DEIS appear to overstate traffic problems and emissions resulting from the No Action alternative and the benefits of the Action alternatives. The population projections employed in the DEIS are based on pre-recession projections, and now exceed the current highest population projections for Maricopa County by Arizona’s Office of Employment and Population Statistics. As a result, the forecasted traffic problems and emissions associated with all alternatives in the DEIS are likely higher than what is reasonably expected to occur based on more current data. Additionally, the congestion issues and emissions that the DEIS describes as a result of the No Action alternative include more trips and more congestion than are reasonable to expect. As a result, the relative benefits of Action alternatives are also likely to be overstated. This overestimate occurs because the travel model forecasts for the Action and No Action alternatives employ the same socioeconomic projections from the Maricopa Association of Governments, which are based on municipal master plans. The underlying master plans assume that the South Mountain Freeway is completed, and do not have land use plans that represent the No Action alternative. Recommendations: - Present congestion impacts and emissions for the No Action alternative using updated socioeconomic projections that do not assume completion of the South Mountain Freeway (with appropriate caveats about uncertainty). - Present the comparison of impacts from the Action and No Action alternatives to reflect the likely differences in land use (e.g., residential and commercial development) between the Action and No Action alternatives. Health Effects The proposed South Mountain Freeway will place a high-volume roadway adjacent to hundreds of residences and several schools. Although the DEIS did not analyze the number of residences remaining within a designated “buffer of impact” (i.e. within 500 feet of the centerline or edge of the new highway alignment), the document does state that the preferred alternative will displace 845 units, including 680 multifamily residences and 165 single family residences. This is an indication of the urbanized footprint of the proposed project and raises a question regarding the number of remaining residences within close distance of the new highway. It also raises the importance of fully assessing, disclosing, and identifying mitigation measures to address the potential health-related impacts to the remaining adjacent residences. Further, as proposed, the new highway alignment will place 8 lanes of high-volume freeway traffic adjacent to Gila River Indian Community (GRIC) land, where little development, residences, or sensitive receptors currently exist. The disclosure of the potential health impacts of the highway within the EIS process could assist the future of GRIC land-use planning and zoning decisions regarding the types of land uses that will be appropriate directly adjacent to the new freeway. In addition to the requirement of NEPA to evaluate and disclose such impacts, FHWA has received numerous public comments expressing concern about the potential health impacts in their communities related to air pollution emitted by construction and operation of the proposed South Mountain Freeway (see Chapter 6 appendices). EPA also received request letters asking us to require ADOT and FHWA to assess health impacts of the proposed freeway. We discussed these requests during an interagency call with ADOT and FHWA on February 23, 2010. The DEIS currently does not address these
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11 (cont.)		Area. Such an inventory would be incomplete without the inclusion of emissions from Interstate 10 because Interstate 10 is within the Study Area, and because, as noted above, emissions changes in the Study Area, accounting for changes in traffic and emissions on all roadways affected by a proposed project, are a more reliable indicator of changes in health risk.
12	Land Use	Section 93.110 of the U.S. Environmental Protection Agency transportation conformity rule requires that the population and employment projections used in a conformity analysis be the most recent estimates that have been officially approved by the metropolitan planning organization. The Maricopa Association of Governments is the metropolitan planning organization for the Maricopa County nonattainment and maintenance areas. In accordance with the Arizona Governor’s Executive Order 2011-04, county-level population projections used for all State agency planning purposes were updated by the Arizona Department of Administration in December 2012, based on the 2010 U.S. Census. The Arizona Department of Administration projections for Maricopa County were distributed to smaller geographic areas by the Maricopa Association of Governments using the latest available data, including general plans for local jurisdictions, and a state-of- the-art land use model system called AZ-SMART. The nationally-recognized UrbanSim microsimulation model was integrated into AZ SMART and used to allocate county projections of population and employment to regional market areas based upon the pre-existing location of these activities, land consumption, and transportation system accessibility. The allocation from market areas to land use parcels was accomplished with UrbanSim, which simulates real-estate development based on measures such as accessibility to employment, adjacent land uses, highway access, and proximity to other development. Population, households and employment (socioeconomic) projections at the land use parcel level in the Maricopa Association of Governments planning area were aggregated to Traffic Analysis Zones using AZ-SMART. The subcounty socioeconomic projections developed with the AZSMART model were approved by the Maricopa Association of Governments Regional Council in June 2013. The traffic analysis zones socioeconomic projections take into account the transportation improvements contained in the conforming Maricopa Association of Governments Transportation Improvement Program and <i>Regional Transportation Plan</i> in effect at the time the projections were approved. As required by the U.S. Environmental Protection Agency, the Maricopa Association of Governments- approved population and employment projections were used to estimate auto and transit trips, vehicle miles of travel, and congestion for each analysis year in the 2014 Maricopa Association of Governments Conformity Analysis and the Final Environmental Impact Statement for the South Mountain Freeway. The methodology used to prepare the socioeconomic projections is described in the <i>Maricopa Association of Governments Conformity Analysis for the FY 2014-2018 Transportation Improvement Program and the 2035 Regional Transportation Plan</i>, January 2014 (see Appendix 4-3), which was approved by the U.S. Department of Transportation on February 12, 2014.
13	Land Use	Section 93.110 of the U.S. Environmental Protection Agency transportation conformity rule requires that the population and employment projections used in a conformity analysis be the most recent estimates that have been officially approved by the metropolitan planning organization. The Maricopa Association of Governments is the metropolitan planning organization for the Maricopa County

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	- Emissions trends from the South Mountain Freeway corridor should be presented, by themselves, in addition to emissions along other road links (e.g., I-10). Chapters 1 and 4 of the DEIS appear to overstate traffic problems and emissions resulting from the No Action alternative and the benefits of the Action alternatives. The population projections employed in the DEIS are based on pre-recession projections, and now exceed the current highest population projections for Maricopa County by Arizona’s Office of Employment and Population Statistics. As a result, the forecasted traffic problems and emissions associated with all alternatives in the DEIS are likely higher than what is reasonably expected to occur based on more current data. Additionally, the congestion issues and emissions that the DEIS describes as a result of the No Action alternative include more trips and more congestion than are reasonable to expect. As a result, the relative benefits of Action alternatives are also likely to be overstated. This overestimate occurs because the travel model forecasts for the Action and No Action alternatives employ the same socioeconomic projections from the Maricopa Association of Governments, which are based on municipal master plans. The underlying master plans assume that the South Mountain Freeway is completed, and do not have land use plans that represent the No Action alternative. Recommendations: - Present congestion impacts and emissions for the No Action alternative using updated socioeconomic projections that do not assume completion of the South Mountain Freeway (with appropriate caveats about uncertainty). - Present the comparison of impacts from the Action and No Action alternatives to reflect the likely differences in land use (e.g., residential and commercial development) between the Action and No Action alternatives. Health Effects 14 The proposed South Mountain Freeway will place a high-volume roadway adjacent to hundreds of residences and several schools. Although the DEIS did not analyze the number of residences remaining within a designated “buffer of impact” (i.e. within 500 feet of the centerline or edge of the new highway alignment), the document does state that the preferred alternative will displace 845 units, including 680 multifamily residences and 165 single family residences. This is an indication of the urbanized footprint of the proposed project and raises a question regarding the number of remaining residences within close distance of the new highway. It also raises the importance of fully assessing, disclosing, and identifying mitigation measures to address the potential health-related impacts to the remaining adjacent residences. Further, as proposed, the new highway alignment will place 8 lanes of high-volume freeway traffic adjacent to Gila River Indian Community (GRIC) land, where little development, residences, or sensitive receptors currently exist. The disclosure of the potential health impacts of the highway within the EIS process could assist the future of GRIC land-use planning and zoning decisions regarding the types of land uses that will be appropriate directly adjacent to the new freeway. In addition to the requirement of NEPA to evaluate and disclose such impacts, FHWA has received numerous public comments expressing concern about the potential health impacts in their communities related to air pollution emitted by construction and operation of the proposed South Mountain Freeway (see Chapter 6 appendices). EPA also received request letters asking us to require ADOT and FHWA to assess health impacts of the proposed freeway. We discussed these requests during an interagency call with ADOT and FHWA on February 23, 2010. The DEIS currently does not address these

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13 (cont.)		nonattainment and maintenance areas. In accordance with the Arizona Governor’s Executive Order 2011-04, county-level population projections used for all State agency planning purposes were updated by the Arizona Department of Administration in December 2012, based on the 2010 U.S. Census. The Arizona Department of Administration projections for Maricopa County were distributed to smaller geographic areas by the Maricopa Association of Governments using the latest available data, including general plans for local jurisdictions, and a state-of-the-art land use model system called AZ-SMART. The nationally-recognized UrbanSim microsimulation model was integrated into AZ-SMART and used to allocate county projections of population and employment to regional market areas based upon the pre-existing location of these activities, land consumption, and transportation system accessibility. The allocation from market areas to land use parcels was accomplished with UrbanSim, which simulates real-estate development based on measures such as accessibility to employment, adjacent land uses, highway access, and proximity to other development. Population, households and employment (socioeconomic) projections at the land use parcel level in the Maricopa Association of Governments planning area were aggregated to Traffic Analysis Zones using AZ-SMART. The subcounty socioeconomic projections developed with the AZSMART model were approved by the Maricopa Association of Governments Regional Council in June 2013. The traffic analysis zones socioeconomic projections take into account the transportation improvements contained in the conforming Maricopa Association of Governments Transportation Improvement Program and <i>Regional Transportation Plan</i> in effect at the time the projections were approved. As required by the U.S. Environmental Protection Agency, the Maricopa Association of Governments-approved population and employment projections were used to estimate auto and transit trips, vehicle miles of travel, and congestion for each analysis year in the 2014 Maricopa Association of Governments Conformity Analysis and the Final Environmental Impact Statement for the South Mountain Freeway. The methodology used to prepare the socioeconomic projections is described in the <i>Maricopa Association of Governments Conformity Analysis for the FY 2014-2018 Transportation Improvement Program and the 2035 Regional Transportation Plan</i>, January 2014 (see Appendix 4-3), which was approved by the U.S. Department of Transportation on February 12, 2014.
14	Health Risk Assessment	The U.S. Environmental Protection Agency comments request “an air toxics risk assessment that assesses potential health impacts of the project and characterizes exposures to and risks from the pollutants of concern.” The U.S. Environmental Protection Agency previously recommended an air toxics risk assessment in an e-mail dated March 12, 2010, and provided two examples from projects in California. The Federal Highway Administration reviewed these materials and provided an extensive response on May 6, 2010. In its response, the Federal Highway Administration provided information on concerns with risk assessment as it relates to highway projects; identified limitations with the two example California studies, including use of a cancer risk factor for diesel particulate matter that has not been adopted or approved by the U.S. Environmental Protection Agency in the Integrated Risk Information System; and pointed out that both of the California examples identified very low risk if diesel particulate matter is excluded. The U.S. Environmental Protection Agency’s comments on the Draft Environmental Impact Statement were silent with regard to the Federal Highway Administration’s conclusions in its May 6, 2010, review of these studies.

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	community concerns. A new freeway would significantly increase the exposure of the surrounding community to mobile source air pollution, including diesel emissions. As many studies suggest this increased exposure is problematic to health, the DEIS should include an air toxics risk assessment that assesses potential health impacts of the project and characterizes exposures to and risks from the pollutants of concern. This analysis could be useful for decision makers by indicating areas where future risk would be elevated, and further mitigation could be considered. EPA does not agree with the characterization in the DEIS of available modeling tools for conducting emissions and dispersion modeling and risk assessment. The uncertainties in modeling discussed between pages 4-68 and 4-76 have been well-known factors in risk assessment since at least 1983 (http://www.epa.gov/risk_assessment/history.htm), and EPA’s risk assessment guidance includes much discussion of such uncertainties, including low-dose extrapolation, and how modeling results may be characterized and assessed in view of these uncertainties. EPA’s guidelines on risk assessment have been the subject of numerous reviews by EPA’s Scientific Advisory Board and the National Research Council. Recommendations: • Analyze and discuss the potential health impacts from the construction and operation at full build out of the new proposed 8-lane freeway to possible receptors along the new corridor. • The supplemental EIS should describe all sensitive receptors that may be impacted, along with possible mitigation measures to reduce impacts. • Coordinate with GRIC to disclose potential health impacts from the new freeway corridor so that information will be available to GRIC to assist with land-use and zoning decisions along GRIC lands that are adjacent to the new corridor. • Available data and methodology for assessing health impacts are provided below. All of the existing tools and guidance needed to perform a risk characterization for air toxics are available for free on EPA’s web site: • Emissions of air toxics from individual road links may be modeled with MOVES (http://www.epa.gov/otag/models/moves/index.htm). • AERMOD may be used to model ambient concentrations of toxics at locations in the project area, given emissions from MOVES. For guidance on how to conduct such analyses, consult the document, “Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas.” (http://www.epa.gov/otag/stateresources/transconf/projectlevel-hotspot.htm#pm-hotspot) • Given ambient concentrations of air toxics, risk characterization can be done using EPA guidance and data: ○ EPA’s Air Toxics Risk Assessment Reference Library (http://www.epa.gov/ttn/fera/risk_atra_main.html) describes how to conduct risk assessment “at the facility and community scale.” Volume 1 of the library describes the process and basic technical tools for these analyses, and Volume 2 describes detailed procedures for source-specific or facility-specific risk assessment. ○ EPA’s IRIS web site (http://www.epa.gov/IRIS/), referenced on page 4-69, includes the “individual unit risk estimates”, also known as “potencies” or “slope factors,” which may be employed in the process of cancer risk assessment, and reference concentrations for noncancer risk assessment.

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14 (cont.)		The Role of Health Risk Assessment in a National Environmental Policy Act Context The Federal Highway Administration’s National Environmental Policy Act documents are developed under two guiding regulations: the Council on Environmental Quality’s National Environmental Policy Act regulations applicable to all federal agencies (40 Code of Federal Regulations Parts 1500–1508) and the Federal Highway Administration’s implementing regulations governing Federal Highway Administration National Environmental Policy Act documents (23 Code of Federal Regulations Part 771). In its mobile source air toxics guidance, the Federal Highway Administration discusses 40 Code of Federal Regulations Part 1502.22 and acknowledges that while much work has been done to assess the overall health risk of mobile source air toxics, analytical tools and techniques for assessing project-specific health outcomes as a result of lifetime exposures to mobile source air toxics remain limited. These limitations impede the ability to evaluate the potential health risks attributable to exposure to mobile source air toxics as part of the decision-making process in the National Environmental Policy Act context. However, as with any analysis that the Federal Highway Administration conducts for National Environmental Policy Act purposes, the Federal Highway Administration’s approach for mobile source air toxic analysis in National Environmental Policy Act documents is informed not just by 40 Code of Federal Regulations Part 1502.22, but by all applicable Council on Environmental Quality requirements. The appropriateness of air toxics health risk assessment as an analysis method for National Environmental Policy Act documents is discussed below, in the context of Council on Environmental Quality requirements for these documents. In addition to the 40 Code of Federal Regulations Part 1502.22 provisions regarding uncertainty and limitations discussed in the Federal Highway Administration’s MSAT Interim Guidance Appendix C, three other provisions of the Council on Environmental Quality regulations are particularly relevant to the topic of health risk assessment: <i>40 Code of Federal Regulations § 1500.1(b): NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail.</i> <i>40 Code of Federal Regulations § 1502.1: An environmental impact statement is more than a disclosure document. It shall be used by Federal officials in conjunction with other relevant material to plan actions and make decisions.</i> <i>40 Code of Federal Regulations § 1502.2: (a) Environmental impact statements shall be analytic rather than encyclopedic. (b) Impacts shall be discussed in proportion to their significance.(c) Environmental impact statements shall be kept concise and shall be no longer than absolutely necessary to comply with NEPA and with these regulations.</i> Section 1500.1(b) states that information for decision making must be of high quality and based on accurate scientific analysis. Air toxics health risk assessments can involve large uncertainties. The mobile source air toxic health risk assessment uncertainty builds on itself—each step of the analysis involves uncertainties, including modeling traffic and then modeling emissions, and using this estimated output to model dispersion/concentrations, which provide information for

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	○ EPA’s Health Effects Notebook for Hazardous Air Pollutants also includes information on some of the MSATs, including benzene, 1,3-butadiene, formaldehyde, acetaldehyde, acrolein, and POMs (http://www.epa.gov/ttn/atw/hlthef/hapindex.html). ○ Detailed cancer risk assessment guidance is available in the following EPA documents: ▪ “Guidelines for Carcinogen Risk Assessment” (2005) (http://epa.gov/cancerguidelines/) ▪ “Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens” (http://epa.gov/cancerguidelines/sup-guidance-early-life-exp-carcinogens.htm) ● If necessary, exposure modeling can be performed using models available from EPA’s web site: ○ The Air Pollutants Exposure Model (http://www.epa.gov/ttn/fera/human_apex.html) ○ The Hazardous Air Pollutant Exposure Model (http://www.epa.gov/ttn/fera/human_hapem.html) ○ Another document that can address exposure modeling is EPA’s Exposure Factors Handbook (http://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=236252). Children’s Environmental Health and Safety Executive Order 13045 on Children’s Health and Safety directs each Federal agency, to the extent permitted by law, to make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children, and to ensure that its policies, programs, activities, and standards address these risks. Analysis and disclosure of these potential effects under NEPA is necessary because some physiological and behavioral traits of children render them more susceptible and vulnerable than adults to environmental health and safety risks. Although the DEIS identifies communities and public schools located near the proposed project area, the DEIS does not clearly describe the potential direct, indirect, and cumulative impacts of the project on children’s health. Recommendations: ● Evaluate the potential direct, indirect, and cumulative health impacts of the construction and operation of the various project alternatives on children’s health. Obtain and discuss relevant health data (e.g., asthma data) for children living near the proposed project area, if available. The analysis should consider the following: ○ Potential respiratory impacts, including asthma, from air pollutant emissions and generation of fugitive dust; ○ Potential noise impacts to health and learning, especially in areas where the project is located near homes, schools, childcare centers and parks; and ○ Potential impacts from the use of chemicals, such as dust suppressants, and hazardous materials to children living near the proposed project areas. ● The population of children living within the affected communities and potential impacts to children’s health should be added to the discussion on pages 4-29 through 4-38. ● Additional sensitive receptors, including private schools, charter schools, preschools, and childcare centers, should be added to Figure 5-6, and a discussion of the potential project impacts, including air quality and noise, to these sensitive receptors should be included. ● Further evaluate the proposed project alternatives in order to compare potential impacts to children’s health. Clearly identify the project alternatives that have the least impact to children, as well as those alternatives that have the least impact on areas already significantly impacted by existing air pollution, high disease rates, and indicators of social vulnerability.
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14 (cont.)		estimating or assuming exposures to those concentrations, and finally predicting health outcomes. Major uncertainties are associated with traffic and emissions projections over a 70-year period, and dispersion models are typically held to a “factor of 2” performance standard. Health impacts of mobile source air toxics in the U.S. Environmental Protection Agency Integrated Risk Information System are based on a 70-year lifetime exposure, which introduces significant uncertainty (e.g., on average, people in the United States change residence approximately once every 8 years and change jobs once every 3). Finally, as noted above, the U.S. Environmental Protection Agency’s Integrated Risk Information System provides toxicity (risk) values for various pollutants and routes of exposure; in a health risk assessment, the Federal Highway Administration would compare calculated concentrations of mobile source air toxic pollutants to the Integrated Risk Information System values to estimate health risk. In the Integrated Risk Information System, the U.S. Environmental Protection Agency states the toxicity values are believed to be accurate to within an order of magnitude (a factor of 10). The total cumulative uncertainty involved in highway project health risk assessment is much larger than the change in emissions attributable to projects (typically a few percentage points). In this context, the information would not necessarily have a strong nexus to the requirements for high-quality information and accurate scientific analysis. Section 1500.1(b) also directs agencies to focus their National Environmental Policy Act analysis and documentation on issues that are truly significant to the action in question. In the context of mobile source air toxics, the Federal Highway Administration must consider whether changes in mobile source air toxic emissions attributable to a project have the potential for significant health risk. Using cancer risk as an example, the U.S. Environmental Protection Agency estimates that the overall risk of cancer in the United States is approximately 330,000 in a million, and that air toxics (from all sources) are responsible for a risk of approximately 50 in a million. In its most recent mobile source air toxics rule-making, the U.S. Environmental Protection Agency estimated mobile source air toxic cancer risk, after implementation of emissions controls, at approximately 5 in a million (or 0.0015 percent of overall cancer risk from any cause). For the Preferred Alternative, the mobile source air toxic emissions analysis for the Study Area found little difference in total annual emissions of mobile source air toxic emissions between the Preferred and No-Action Alternatives (less than a 1 percent difference) in 2025 and 2035. With the Preferred Alternative in 2035, modeled mobile source air toxic emissions would decrease by more than 80 percent, depending on the pollutant, despite a 47 percent increase in vehicle miles traveled in the Study Area compared with 2012 conditions (see the discussion beginning on page 4-77 of the Final Environmental Impact Statement). In summary, available information from the U.S. Environmental Protection Agency indicates that mobile source air toxics are a small component of overall cancer risk, and the analysis for the Final Environmental Impact Statement indicates both that the Preferred Alternative would result in a small change in the emissions contributing to this risk and that emissions will decline by a large amount regardless of alternative.

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14 (cont.)		As discussed above and in Appendix C of the Federal Highway Administration’s mobile source air toxic guidance, results from the health risk assessment would be influenced more by the uncertainty introduced into the process through assumptions and speculations rather than by genuine insight into the actual health impacts directly attributable to mobile source air toxic exposure associated with a project. Therefore, outcomes of such a health risk assessment do not provide useful information for decision makers, as required by Section 1502.1. The Federal Highway Administration emissions analysis meets the requirement to produce information that is useful for both disclosure and decision making because it allows the public and decision makers to see which alternative has less mobile source air toxic emissions, with much less uncertainty than a health risk assessment. Given the uncertainty of a mobile source air toxic health risk assessment, the Federal Highway Administration instead addresses the potential impacts of mobile source air toxics through an emissions assessment in its National Environmental Policy Act documents. For smaller projects with a lower likelihood of a meaningful impact, this discussion is qualitative. For larger projects, emissions analysis is conducted. The Federal Highway Administration approach is consistent with the Council on Environmental Quality’s direction in Section 1502.2(b) to discuss impacts in proportion to their significance. The results of an emissions analysis can be summarized concisely in a National Environmental Policy Act document and provide useful information for decision makers (e.g., an alternative that has lower emissions is likely to be “better” from a mobile source air toxics health risk standpoint than one that has higher emissions). While the U.S. Environmental Protection Agency and the Federal Highway Administration both agree on the usefulness of addressing mobile source air toxics in National Environmental Policy Act documents for highway projects, the agencies disagree about the value of health risk assessment as a method for doing so. This issue has arisen in National Environmental Policy Act consultation for many highway projects around the country and is not unique to the proposed project. In its comment letter, the U.S. Environmental Protection Agency is treating the lack of an mobile source air toxic health risk assessment as a <i>technical deficiency</i>, stating that the National Environmental Policy Act document cannot provide a “robust and meaningful air quality analysis” without one. For the reasons described above, a mobile source air toxics health risk assessment is not a “robust and meaningful” method for assessing individual highway projects. As outlined in the Federal Highway Administration’s guidance and elsewhere in this response to comments, health risk assessment for mobile source air toxics is not necessary in meeting applicable Council on Environmental Quality regulatory requirements for National Environmental Policy Act documents, nor would the results from the health risk assessment provide additional information over a mobile source air toxic emission assessment for decision makers. Another consideration with respect to health impacts is that the Preferred Alternative would also reduce in-vehicle mobile source air toxics exposure as opposed to the No-Action Alternative. The U.S. Environmental Protection Agency has found that in-vehicle benzene concentrations were between 2.5 and 40 times higher than nearby ambient concentrations, based on a review of studies discussed in the Regulatory Impact Analysis for the U.S. Environmental Protection Agency’s 2007 mobile source air toxics rule-making (Final Regulatory Impact Analysis, Environmental Protection Agency 420-R-07-002, 3-17 [February 2007]). Construction of the Preferred Alternative would result in a reduction in benzene exposure to drivers and passengers for two reasons: decreased travel times

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	○ EPA’s Health Effects Notebook for Hazardous Air Pollutants also includes information on some of the MSATs, including benzene, 1,3-butadiene, formaldehyde, acetaldehyde, acrolein, and POMs (http://www.epa.gov/ttn/atw/hlthef/hapindex.html). ○ Detailed cancer risk assessment guidance is available in the following EPA documents: ▪ “Guidelines for Carcinogen Risk Assessment” (2005) (http://epa.gov/cancerguidelines/) ▪ “Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens” (http://epa.gov/cancerguidelines/sup-guidance-early-life-exp-carcinogens.htm) ● If necessary, exposure modeling can be performed using models available from EPA’s web site: ○ The Air Pollutants Exposure Model (http://www.epa.gov/ttn/fera/human_apex.html) ○ The Hazardous Air Pollutant Exposure Model (http://www.epa.gov/ttn/fera/human_hapem.html) ○ Another document that can address exposure modeling is EPA’s Exposure Factors Handbook (http://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=236252). Children’s Environmental Health and Safety Executive Order 13045 on Children’s Health and Safety directs each Federal agency, to the extent permitted by law, to make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children, and to ensure that its policies, programs, activities, and standards address these risks. Analysis and disclosure of these potential effects under NEPA is necessary because some physiological and behavioral traits of children render them more susceptible and vulnerable than adults to environmental health and safety risks. Although the DEIS identifies communities and public schools located near the proposed project area, the DEIS does not clearly describe the potential direct, indirect, and cumulative impacts of the project on children’s health. Recommendations: 15 ● Evaluate the potential direct, indirect, and cumulative health impacts of the construction and operation of the various project alternatives on children’s health. Obtain and discuss relevant health data (e.g., asthma data) for children living near the proposed project area, if available. The analysis should consider the following: ○ Potential respiratory impacts, including asthma, from air pollutant emissions and generation of fugitive dust; ○ Potential noise impacts to health and learning, especially in areas where the project is located near homes, schools, childcare centers and parks; and ○ Potential impacts from the use of chemicals, such as dust suppressants, and hazardous materials to children living near the proposed project areas. ● The population of children living within the affected communities and potential impacts to children’s health should be added to the discussion on pages 4-29 through 4-38. ● Additional sensitive receptors, including private schools, charter schools, preschools, and childcare centers, should be added to Figure 5-6, and a discussion of the potential project impacts, including air quality and noise, to these sensitive receptors should be included. ● Further evaluate the proposed project alternatives in order to compare potential impacts to children’s health. Clearly identify the project alternatives that have the least impact to children, as well as those alternatives that have the least impact on areas already significantly impacted by existing air pollution, high disease rates, and indicators of social vulnerability.
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14 (cont.)		(motorists would spend less time in traffic to reach their destinations) and lower emissions rates (attributable to speed improvements). Reducing on-road exposure would provide a health benefit for motorists using the roadway network. The Federal Highway Administration determined that a supplemental environmental impact statement is not required at this time because there were no changes to the proposed action that will result in significant environmental impacts not evaluated in the Draft Environmental Impact Statement nor is there new information relevant to environmental concerns and bearings on the proposed action or its impacts that will result in significant environmental impacts not evaluated in the Draft Environmental Impact Statement.
15	Children’s Health	Executive Order 13045 provides, in part, that federal agencies make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children and to ensure that their policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks. It further directs federal agencies to protect children from environmental health and safety risks in carrying out their missions. For each “covered regulatory action” (e.g., any substantive action in rule making that is likely to result in a rule that is economically significant [Executive Order 12866] or rule making an agency has reason to believe may disproportionately affect children) submitted to the Office of Management and Budget Office of Information and Regulatory Affairs pursuant to Executive Order 12866, federal agencies should include an evaluation of the effects of the planned regulation on children and why it is preferable. The Federal Highway Administration and the Arizona Department of Transportation do not believe the proposed alternatives would disproportionately affect children, nor are the proposed alternatives described in the Draft Environmental Impact Statement regulatory in nature. Throughout the Draft Environmental Impact Statement, potential impacts on and subsequent mitigation for human health are disclosed and identified, as inherent in the environmental impact statement process. The Draft Environmental Impact Statement incorporates an assessment of the potential impacts of the proposed project on all populations, including children. The Draft Environmental Impact Statement addressed potential impacts of the project on children in the Chapter 4 environmental consequences analysis. In that chapter, the Draft Environmental Impact Statement notes that, based on U.S. Census results, the percentage of female heads of households with children in the Study Area was 59 percent higher than that of the county (see page 4-30 of the Draft Environmental Impact Statement). Additionally, local school districts and other organizations were contacted to determine the effects a major transportation project would have (noting that most low-income children arrived at school by bus) (see page 4-31 of the Draft Environmental Impact Statement). The Draft Environmental Impact Statement also included a review of the U.S. Environmental Protection Agency’s Toxicity and Exposure Assessments for Children’s Health, which indicated that indoor air concentrations of benzene are usually higher than outdoor levels and that indoor air in smokers’ homes is a significant contributor to children’s exposures and mentioned children when identifying the effects of acute exposure to naphthalene (see pages 4-63 and 4-64 of the Draft Environmental Impact Statement). The Draft Environmental Impact Statement acknowledged and fully disclosed public scoping comments that raised

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15 (cont.)		the topic of health effects on neighborhoods and adjacent schools (see page 6-12 of the Draft Environmental Impact Statement). The Draft Environmental Impact Statement evaluated Clean Air Act criteria air pollutant concentrations in Maricopa County and the Phoenix area (see pages 4-58 to 4-62 of the Draft Environmental Impact Statement). With regard to air quality impacts, the Draft Environmental Impact Statement addressed children’s health impacts within the broader discussion regarding health impacts under the National Ambient Air Quality Standards. Clean Air Act § 109(b)(1) requires the U.S. Environmental Protection Agency to promulgate primary National Ambient Air Quality Standards at levels that allow an adequate margin of safety and are requisite to protect the public health. As noted by the U.S. Environmental Protection Agency in its 2013 rulemaking for particulate matter, Clean Air Act § 109’s legislative history demonstrates that the primary standards are “to be set at the maximum permissible ambient air level ... which will protect the health of any [sensitive] group of the population” (78 <i>Federal Register</i> 3086 and 3090) (quoting S. Rep. No. 91-1196, 91st Cong., 2 Sess. 10 [1970]) (alterations in original). Accordingly, the Draft Environmental Impact Statement National Ambient Air Quality Standards-based evaluation of criteria air pollutants included a health-based review of sensitive populations, including children, given the National Ambient Air Quality Standards’ inherent consideration of those factors. Furthermore, the National Ambient Air Quality Standards-based assessment ensures adequate consideration of health-based issues as “[t]he requirement that primary standards provide an adequate margin of safety was intended to address uncertainties associated with inconclusive scientific and technical information ... and to protect against hazards that research has not yet identified” (78 <i>Federal Register</i> 3090). Sensitive receivers for noise and air are already included in the air quality and noise analyses in accordance with State and federal guidance. Both sections, <i>Air Quality</i> and <i>Noise</i>, beginning on Final Environmental Impact Statement pages 4-68 and 4-88, respectively, have addressed requirements under the National Environmental Policy Act. As stated on page 4-89 of the Final Environmental Impact Statement, over 220 sensitive receivers were evaluated at exterior locations from a traffic noise perspective. All of the receivers represent noise-sensitive land uses in proximity to the proposed project, including homes, schools, and parks, and these receivers would have higher noise levels than similar facilities more distant from the proposed action. In response to comments by the U.S. Environmental Protection Agency, each modeled school was reexamined to determine whether noise impacts would result from the proposed freeway and whether appropriate mitigation of these impacts was provided. Of the nine schools modeled in the analysis for the Draft and Final Environmental Impact Statements, all were predicted to exceed the Arizona Department of Transportation Noise Abatement Criteria (see Table 4-40, beginning on page 4-93). Mitigation, in the form of noise walls, was proposed for all schools. After applying this mitigation, all schools except one were mitigated according to the Arizona Department of Transportation noise policy. According to Arizona Department of Transportation policy, noise mitigation should achieve a reduction of 5 to 7 A-weighted decibels and result in a noise level of less than 64 A-weighted decibels for residential and similar areas. These criteria were not reached for one school (receiver 67, Santa Maria Elementary School) because the policy limits wall heights to 20 feet. A wall taller than 20 feet would be required to bring levels at this receiver down to 64 A-weighted decibels. However, a 5-decibel reduction would be

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	○ EPA’s Health Effects Notebook for Hazardous Air Pollutants also includes information on some of the MSATs, including benzene, 1,3-butadiene, formaldehyde, acetaldehyde, acrolein, and POMs (http://www.epa.gov/ttn/atw/hlthef/hapindex.html). ○ Detailed cancer risk assessment guidance is available in the following EPA documents: ▪ “Guidelines for Carcinogen Risk Assessment” (2005) (http://epa.gov/cancerguidelines/) ▪ “Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens” (http://epa.gov/cancerguidelines/sup-guidance-early-life-exp-carcinogens.htm) ● If necessary, exposure modeling can be performed using models available from EPA’s web site: ○ The Air Pollutants Exposure Model (http://www.epa.gov/ttn/fera/human_apex.html) ○ The Hazardous Air Pollutant Exposure Model (http://www.epa.gov/ttn/fera/human_hapem.html) ○ Another document that can address exposure modeling is EPA’s Exposure Factors Handbook (http://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=236252). Children’s Environmental Health and Safety Executive Order 13045 on Children’s Health and Safety directs each Federal agency, to the extent permitted by law, to make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children, and to ensure that its policies, programs, activities, and standards address these risks. Analysis and disclosure of these potential effects under NEPA is necessary because some physiological and behavioral traits of children render them more susceptible and vulnerable than adults to environmental health and safety risks. Although the DEIS identifies communities and public schools located near the proposed project area, the DEIS does not clearly describe the potential direct, indirect, and cumulative impacts of the project on children’s health. Recommendations: ● Evaluate the potential direct, indirect, and cumulative health impacts of the construction and operation of the various project alternatives on children’s health. Obtain and discuss relevant health data (e.g., asthma data) for children living near the proposed project area, if available. The analysis should consider the following: ○ Potential respiratory impacts, including asthma, from air pollutant emissions and generation of fugitive dust; ○ Potential noise impacts to health and learning, especially in areas where the project is located near homes, schools, childcare centers and parks; and ○ Potential impacts from the use of chemicals, such as dust suppressants, and hazardous materials to children living near the proposed project areas. ● The population of children living within the affected communities and potential impacts to children’s health should be added to the discussion on pages 4-29 through 4-38. ● Additional sensitive receptors, including private schools, charter schools, preschools, and childcare centers, should be added to Figure 5-6, and a discussion of the potential project impacts, including air quality and noise, to these sensitive receptors should be included. ● Further evaluate the proposed project alternatives in order to compare potential impacts to children’s health. Clearly identify the project alternatives that have the least impact to children, as well as those alternatives that have the least impact on areas already significantly impacted by existing air pollution, high disease rates, and indicators of social vulnerability.

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15 (cont.)		provided by the 20-foot wall proposed in this area. It is important to note that this receiver would be affected only by the W71 Alternative, which is not the Preferred Alternative. The Arizona Department of Transportation noise policy also states that noise abatement shall be considered if “substantial increases” (defined as a 15 A-weighted decibel or greater increase) are predicted. Of the nine schools modeled, substantial increases were predicted at six schools. As discussed above, however, noise walls would reduce noise levels at all schools according to the Arizona Department of Transportation noise policy, with the exception of Santa Maria Elementary School, which would be affected only by the W71 Alternative, which is not the Preferred Alternative. According to the Federal Highway Administration’s 1995 Highway Traffic Noise Analysis and Abatement Policy and Guidance, in most cases, if the exterior area can be protected, the interior will also be protected. Likewise, as noted on page 4-65 of the Draft Environmental Impact Statement, over 700 receptors were modeled for carbon monoxide concentrations. Receptor placement met the criteria for selecting modeling locations as specified in 40 Code of Federal Regulations § 93.123(a). The carbon monoxide analysis was updated in the Final Environmental Impact Statement. Although a qualitative analysis of particulate matter (PM₁₀) was presented in the Draft Environmental Impact Statement, a quantitative project-level particulate matter (PM₁₀) hot-spot analysis is included in the Final Environmental Impact Statement. The results of the air quality updates are summarized in the prologue to the Final Environmental Impact Statement (page xiii) and are more fully described beginning on page 4-68 of the Final Environmental Impact Statement. Thus, the particulate matter (PM₁₀) analysis demonstrated that the proposed freeway would not contribute to any new localized violations, increase the frequency or severity of any existing violation, or delay timely attainment of the National Ambient Air Quality Standards or any required interim emissions reductions or other milestones. Through analysis, the Federal Highway Administration has determined that the proposed project would not produce disproportionate impacts to children.
16	Children’s Health	Executive Order 12898 and Title VI of the Civil Rights Act of 1964 are discussed on pages 4-29 through 4-38 of the Draft Environmental Impact Statement. In the federal definitions characterizing these populations, “children” is not an included population. Therefore, it would be inaccurate to include a discussion on children.

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15	- Identify mitigation measures to reduce impacts from the proposed project’s construction and operation to schools and child care centers near the proposed project area, including measures identified in the voluntary EPA School Siting Guidelines (http://www.epa.gov/schools/siting/download.html), and voluntary EPA Guidelines for States: Development and Implementation of a School Environmental Health Program (http://www.epa.gov/schools/ehguidelines/index.html). Engage local school districts, child care providers, and others to discuss mitigation measures. Construction Emissions Page 4-161 discusses mitigation measures to be implemented to reduce emissions from construction. In addition to the identified measures, EPA recommends that FHWA consider implementing the mitigation measures listed below. Recommendations: - Implement a strong anti-idling policy at all construction sites, and limit idling of heavy equipment and trucks to less than five minutes. - Larger Tier 4 construction equipment will be more widely available in 2015.⁴ To the extent practicable, starting in 2015, limit construction equipment to EPA’s Tier 4 emission standards. - Commit to the use of construction equipment powered by alternative fuels (i.e., biodiesel, compressed natural gas, and electricity) where feasible. - Train construction contractors and their employees on air quality impacts from construction activities and potential health risks to nearby receptors, and ways to reduce emissions (no idling, using PM filters, using alternative fuels, etc.). Displacement Page 4-39 states that the preferred alternative will displace 165 single family residences and 680 multifamily residences, for a total of 845 displaced units. While this represents the fewest single family homes affected (other alternatives range in impacts from between 710 to 969 when adding the Eastern and Western alignments), the preferred alignment is the only alignment that will affect multifamily residences (other alternatives will affect no multifamily residences). The DEIS discussion of displacements focuses mainly on single residences being affected and lacks important detail regarding multifamily residential impacts. Page 4-40 states a rental vacancy rate of 9% for the displaced multifamily residences, based on 2009 data. It is unclear what opportunities exist currently for the potentially displaced 680 multifamily residences. The Environmental Justice Analysis on page 4-38 states that the “availability of replacement housing” for Section 8 vouchers is not easily quantified. It is therefore not clear to what extent low-income and/or minority populations will be affected by the project. Additional mitigation and/or community outreach, and assistance may be necessary to offset relocation impacts. ⁴ More information is available at http://www.dieselnet.com/standards/us/nonroad.php.

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17	Temporary Construction Impacts	Environmental analyses conducted for and documented in the Draft Environmental Impact Statement comply with the Federal Highway Administration’s regulations for implementing the National Environmental Policy Act at 23 Code of Federal Regulations § 771. Limiting trucks and equipment to 5 minutes of idling would be unsafe and inefficient. In the Phoenix area, equipment operators depend on air conditioning. Shutting down equipment would place equipment operators in danger of hyperthermia. In addition, shutting down equipment requires a cooling down period to allow hydraulic fluid to cool and a corresponding period to allow the fluid to warm to operating temperatures after a restart. As a result, shutting down and restarting equipment could actually result in more idling, not less.
18	Temporary Construction Impacts	Environmental analyses conducted for and documented in the Draft Environmental Impact Statement comply with the Federal Highway Administration’s regulations for implementing the National Environmental Policy Act at 23 Code of Federal Regulations § 771; however, to address the comment from the U.S. Environmental Protection Agency, the following contractor mitigation measure has been added to the Final Environmental Impact Statement on page 4-173: “To the extent practicable, construction equipment that meets the U.S. Environmental Protection Agency’s Tier 4 emission standards shall be used.”
19	Temporary Construction Impacts	Environmental analyses conducted for and documented in the Draft Environmental Impact Statement comply with the Federal Highway Administration’s regulations for implementing the National Environmental Policy Act at 23 Code of Federal Regulations § 771; however, to address the comment from the U.S. Environmental Protection Agency, the following contractor mitigation measure has been added to the Final Environmental Impact Statement on page 4-173: “Where feasible, construction equipment powered by alternative fuels (e.g., biodiesel, compressed natural gas, electricity) shall be used.”
20	Temporary Construction Impacts	Environmental analyses conducted for and documented in the Draft Environmental Impact Statement comply with the Federal Highway Administration’s regulations for implementing the National Environmental Policy Act at 23 Code of Federal Regulations § 771; however, to address the comment from the U.S. Environmental Protection Agency, the following Phoenix Construction District mitigation measure has been added to the Final Environmental Impact Statement on page 4-173: “ADOT will provide training to contractor’s personnel regarding air quality impacts from construction activities, potential health risks to nearby residents, and methods to reduce emissions.”

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	Recommendations: 21 - Commit to specific mitigation measures to minimize the impacts of displacement and relocation on low-income and minority populations, with particular attention to the needs of those living in below-market rental housing. Identify each measure along with a description of the responsible party, timing for implementation, and length of time anticipated for complete implementation. 21 - Include commitments to specific funding options or other policy measures that would ensure the relocation of all displaced residents to decent, safe, and sanitary replacement housing that is within the residents' financial means. 21 - Discuss specifics of how and where potential relocation could occur, including reference to actual locations where housing can either be built or currently exists. Include a clear timeline, with responsible parties identified, to indicate the schedule for proposed relocations compared with the schedule for the proposed construction of the project. 21 - Include a more comprehensive vision of the future proposed relocation plan for affected residents as a result of this and other transportation projects in the area. ADOT and FHWA should provide additional information on assumptions, estimates, and projections for where displaced residences will ultimately live based on current (rather than 2009) estimates. 21 - Conduct interviews with all potential displaced residents to determine relocation needs. Confirm that those who have special needs will be accommodated with a plan for assistance as needed. Based on the results from the interviews, consider additional measures to minimize the impacts of relocation, such as providing translations services, transportation to visit potential replacement housing, and/or additional relocation specialists to work with these communities. 21 - To mitigate community character and cohesion impacts to low-income and minority communities, conduct public workshops and work directly with affected populations to identify effective and creative ways to minimize or mitigate these impacts. Noise Impacts The DEIS compares estimated noise levels to FHWA Noise Abatement Criteria. It is unclear whether potential project impacts to interior noise levels were estimated. Recommendations: 22 - Clarify whether mitigated interior noise levels were estimated for homes, schools, childcare centers, and other sensitive receptors. If not, assess the potential interior noise levels that may be experienced at these locations. Discuss the potential noise impacts on health and learning, especially at homes, schools, and childcare centers. 22 - Page 4-90 of the DEIS identifies noise walls or earth berms as noise mitigation measures. As several homes and learning environments are located near the proposed project alignments and may be affected by both the construction and operation of the proposed project, EPA recommends that FHWA consider other noise mitigation measures, such as retrofitting homes, classrooms, and childcare centers with acoustic insulation. Tolling EPA is aware that several toll feasibility studies are underway in the Phoenix metropolitan area for roadways that are near or adjacent to the proposed project corridor, including I-10, I-17, and the proposed North-South Corridor. Tolling on these roadways has the potential to significantly affect traffic on the future South Mountain Freeway by reducing traffic on tolled facilities and shifting traffic

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21	Displacements and Relocations	Based on the comment received, the Arizona Department of Transportation Right-of-Way Group in conjunction with the Federal Highway Administration Right-of-way Officer developed mitigation that explains in detail the actions that would be taken to implement the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act) (see page 4-46 of the Final Environmental Impact Statement). The mitigation would ensure that the Arizona Department of Transportation provides uniform, fair, and equitable treatment of people whose property is affected or who are displaced as a result of the project, including minority and low-income populations. Advisory assistance services and compensation practices are described in detail in the Arizona Department of Transportation's <i>Right-of-way Procedures Manual</i> , located at <azdot.gov/business/RightofWay_Properties/booklets-and-manuals>. For further discussion, see page 4-51 of the Final Environmental Impact Statement and Appendix 4-1. For questions on specific properties, contact the Arizona Department of Transportation Right-of-Way Group at (602) 712-7316.
22	Noise	The noise analyses conducted for and documented in the Final Environmental Impact Statement complies with the Federal Highway Administration's regulations for conducting noise analysis in 23 Code of Federal Regulations § 772. The Federal Aid Highway Act of 1970 required the Federal Highway Administration to develop highway traffic noise standards for use in the planning and design of new highway projects. These standards were promulgated by the Federal Highway Administration on February 8, 1973, and are currently contained in 23 Code of Federal Regulations Part 772. According to 23 Code of Federal Regulations § Part 772.11(c)(2) (iv), an indoor analysis shall be done only after exhausting all outdoor analysis options; therefore, interior noise levels were not specifically assessed in the Draft Environmental Impact Statement or the Final Environmental Impact Statement. Sensitive receivers for noise were included in the noise analysis in accordance with State and federal guidance. The section, <i>Noise</i>, beginning on Final Environmental Impact Statement page 4-88 has addressed requirements under the National Environmental Policy Act. As stated on page 4-89 of the Final Environmental Impact Statement, over 220 sensitive receivers were evaluated at exterior locations from a traffic noise perspective. All of the receivers represent noise-sensitive land uses in proximity to the proposed project, including homes, schools, and parks, and these receivers would have higher noise levels than similar facilities more distant from the proposed action. In response to comments by the U.S. Environmental Protection Agency, each modeled school was reexamined to determine whether noise impacts would result from the proposed freeway and whether appropriate mitigation of these impacts was provided. Of the nine schools modeled in the analysis for the Draft and Final Environmental Impact Statements, all were predicted to exceed the Arizona Department of Transportation Noise Abatement Criteria (see Table 4-40, beginning on page 4-93). Mitigation, in the form of noise walls, was proposed for all schools. After applying this mitigation, all schools except one were mitigated according to the Arizona Department of Transportation noise policy. According to Arizona Department of Transportation policy, noise mitigation should achieve a reduction of 5 to 7 A-weighted decibels and result in a noise level of less than 64 A-weighted decibels for residential and similar areas. These criteria were not reached for one school (receiver 67, Santa Maria Elementary School) because the policy limits wall heights to 20 feet. A wall taller than 20 feet would be required to bring levels at this receiver down to 64 A-weighted decibels. However, a 5-decibel reduction would be provided by the 20-foot wall proposed in this area. It is important to note that this receiver would be affected only by the W71 Alternative, which is not the Preferred Alternative.

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	to non-tolled roads. This has potential implications for analyses of air quality, noise, and environmental justice, as well as additional potential indirect and cumulative impacts. It is unclear whether any toll feasibility study was conducted for the proposed South Mountain Freeway, and there is no discussion in the DEIS of the current toll feasibility studies on adjacent roadways. Recommendations: 23 24 • Disclose results of any toll feasibility study conducted for the proposed project. If no toll feasibility study was conducted, provide a discussion as to why. • Provide details of current toll feasibility studies being conducted on nearby roadways. Include a discussion of how future tolling on these roadways could affect traffic and associated impacts on the South Mountain Freeway. <u>Coordination with Gila River Indian Community and Impacts to Sacred Sites</u> The DEIS describes extensive coordination with the Gila River Indian Community (GRIC) and a history of considering a possible freeway alignment on GRIC lands. We understand that there is still interest within the GRIC community for analyzing a possible freeway alignment on GRIC lands that would avoid the impacts to sacred sites that will result from the current preferred alignment. While we understand that there may never be one alignment route fully supported by the entire tribal community and government, we encourage ADOT and FHWA to continue to work closely with GRIC to reduce impacts to sacred sites and traditional cultural properties to the greatest extent possible. Further, there are many resources regarding the potential health impacts of locating sensitive receptors adjacent to freeways as well as the benefits of smart growth and location efficient housing. ADOT and FHWA should disclose these potential near-roadway health impacts and ensure GRIC has access to the most current information available regarding optimizing land use decisions and safeguarding health in the face of a potential new freeway directly adjacent to GRIC land. Recommendations: • Continue to work closely with GRIC to reduce the proposed project impacts to sacred sites and traditional cultural properties. • Evaluate all mitigation measures suggested by GRIC to determine their effectiveness and feasibility. Identify where implementation of GRIC mitigation measures has been rejected and provide a discussion of the reasons for rejection. • Provide all resources available to GRIC regarding near-roadway health impacts and land-use planning and zoning recommendations for lands adjacent to a new highway. • Should additional alignment alternatives on GRIC land become feasible as a result of tribal approval, these alternatives should be studied in detail and all impacts disclosed in the supplemental DEIS. <u>Environmental Justice</u> Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, directs each Federal agency to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations
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22 (cont.)		The Arizona Department of Transportation noise policy also states that noise abatement shall be considered if “substantial increases” (defined as a 15 A-weighted decibel or greater increase) are predicted. Of the nine schools modeled, substantial increases were predicted at six schools. As discussed previously, however, noise walls would reduce noise levels at all schools according to Arizona Department of Transportation noise policy, with the exception of Santa Maria Elementary School, which would be affected only by the W71 Alternative, which is not the Preferred Alternative. According to the Federal Highway Administration’s 1995 Highway Traffic Noise Analysis and Abatement Policy and Guidance, in most cases, if the exterior area can be protected, the interior will also be protected. The noise analysis has been updated for the Final Environmental Impact Statement using the most recent Arizona Department of Transportation and Federal Highway Administration policy and traffic projections provided by the Maricopa Association of Governments in November 2013. This updated analysis begins on page 4-88 of the Final Environmental Impact Statement, but no substantial differences between the analysis presented in the Draft Environmental Impact Statement and the Final Environmental Impact Statement resulted. Therefore, no substantial differences in mitigation between the Draft Environmental Impact Statement and Final Environmental Impact Statement were recommended and no mitigation methods other than noise walls were necessary. It is also important to note that the Arizona Department of Transportation noise analysis process is not complete. As design advances, should an action alternative be selected, additional modeling would occur to further refine the mitigation used for the project (see Figure 4-30 on page 4-100 of the Final Environmental Impact Statement).
23	Tolling	According to 40 Code of Federal Regulations § 1502.9(a), the agency shall make every effort to disclose and discuss at appropriate points in the draft statement all major points of view on the environmental impacts of the alternatives including the proposed action. Tolling in relation to the project is disclosed in both Chapters 1 and 3 of the Draft and Final Environmental Impact Statements. In 1996, a consortium of private companies proposed to build a South Mountain Freeway as a toll road. The consortium later withdrew its proposal, saying the project was not financially feasible. The proposal is documented in the <i>Alignment Recommendation, South Mountain Corridor Loop 202</i>, as noted on page 1-8 of the Draft Environmental Impact Statement. Tolling has not been considered for the current study. The project would be completely funded through federal sources and a local ½-cent sales tax, as programmed in the Arizona Department of Transportation 5-year Transportation Facilities Construction Program and the Maricopa Association of Governments <i>Regional Transportation Plan</i>; therefore, tolling is not required to fund the proposed action.
24	Tolling	According to 46 <i>Federal Register</i> 18026 (March 23, 1981), the environmental impact statement must discuss reasonably foreseeable actions. These are actions that are likely to occur or are probable, rather than those that are merely possible. The Maricopa Association of Governments has completed recent studies of the feasibility of implementing congestion pricing, also known as managed lanes or high-occupancy toll lanes, on the region’s freeways (see <i>2035 Regional Transportation Plan</i>, Maricopa Association of Governments, January 2014). While these types of tolling are being considered in the Phoenix metropolitan area, there is no history of performance in the region by which to assess the effects on the proposed freeway.

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	to non-tolled roads. This has potential implications for analyses of air quality, noise, and environmental justice, as well as additional potential indirect and cumulative impacts. It is unclear whether any toll feasibility study was conducted for the proposed South Mountain Freeway, and there is no discussion in the DEIS of the current toll feasibility studies on adjacent roadways. Recommendations: • Disclose results of any toll feasibility study conducted for the proposed project. If no toll feasibility study was conducted, provide a discussion as to why. • Provide details of current toll feasibility studies being conducted on nearby roadways. Include a discussion of how future tolling on these roadways could affect traffic and associated impacts on the South Mountain Freeway. Coordination with Gila River Indian Community and Impacts to Sacred Sites The DEIS describes extensive coordination with the Gila River Indian Community (GRIC) and a history of considering a possible freeway alignment on GRIC lands. We understand that there is still interest within the GRIC community for analyzing a possible freeway alignment on GRIC lands that would avoid the impacts to sacred sites that will result from the current preferred alignment. While we understand that there may never be one alignment route fully supported by the entire tribal community and government, we encourage ADOT and FHWA to continue to work closely with GRIC to reduce impacts to sacred sites and traditional cultural properties to the greatest extent possible. Further, there are many resources regarding the potential health impacts of locating sensitive receptors adjacent to freeways as well as the benefits of smart growth and location efficient housing. ADOT and FHWA should disclose these potential near-roadway health impacts and ensure GRIC has access to the most current information available regarding optimizing land use decisions and safeguarding health in the face of a potential new freeway directly adjacent to GRIC land. Recommendations: 25 • Continue to work closely with GRIC to reduce the proposed project impacts to sacred sites and traditional cultural properties. 26 • Evaluate all mitigation measures suggested by GRIC to determine their effectiveness and feasibility. Identify where implementation of GRIC mitigation measures has been rejected and provide a discussion of the reasons for rejection. • Provide all resources available to GRIC regarding near-roadway health impacts and land-use planning and zoning recommendations for lands adjacent to a new highway. • Should additional alignment alternatives on GRIC land become feasible as a result of tribal approval, these alternatives should be studied in detail and all impacts disclosed in the supplemental DEIS. Environmental Justice Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, directs each Federal agency to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations
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25	Cultural Resources	Section 106 of the National Historic Preservation Act requires a government-to-government relationship between the Federal Government and Indian tribes as described beginning on page 4-140 of the Final Environmental Impact Statement. Section 106 requires federal agencies take into account the effects of their undertakings on historic properties and requires consultation with tribal authorities. Consultation has occurred with Gila River Indian Community government officials, the Tribal Historic Preservation Officer, the Cultural Resource Management Program, other tribes, and the State Historic Preservation Office and has led to concurrence from the Gila River Indian Community Tribal Historic Preservation Office and the State Historic Preservation Office on National Register of Historic Places eligibility recommendations (including traditional cultural properties such as the South Mountains), project effects, and proposed mitigation and measures to minimize harm. This consultation has been ongoing and will continue until any commitments in a record of decision are completed.
26	Cultural Resources	Section 106 of the National Historic Preservation Act requires a government-to-government relationship between the Federal Government and Indian tribes as described beginning on page 4-140 of the Final Environmental Impact Statement. Section 106 requires federal agencies take into account the effects of their undertakings on historic properties and requires consultation with tribal authorities. Consultation has occurred with Gila River Indian Community government officials, the Tribal Historic Preservation Officer, the Cultural Resource Management Program, other tribes, and the State Historic Preservation Office and has led to concurrence from the Gila River Indian Community Tribal Historic Preservation Office and the State Historic Preservation Office on National Register of Historic Places eligibility recommendations (including traditional cultural properties such as the South Mountains), project effects, and proposed mitigation and measures to minimize harm. This consultation has been ongoing and will continue until any commitments in a record of decision are completed. Since the beginning of the environmental impact statement process, the Federal Highway Administration and Arizona Department of Transportation have been carrying out cultural resource studies and engaging in an ongoing, open dialogue with the Gila River Indian Community Tribal Historic Preservation Office regarding the identification and evaluation of places of religious and cultural importance to the Gila River Indian Community that may be adversely affected by the proposed freeway. Such places are referred to as traditional cultural properties. As a result of these discussions and of studies conducted by the Gila River Indian Community’s Cultural Resource Management Program, the Gila River Indian Community has identified traditional cultural properties that are eligible for listing in the National Register of Historic Places and that could be affected by construction of the proposed South Mountain Freeway. In certain cases, listing these properties on the National Register of Historic Places may offer them protection under Section 4(f) of the Department of Transportation Act. The traditional cultural properties identified are culturally important to other Native American tribes as well. For more discussion of traditional cultural properties, see the section, <i>Cultural Resources</i>, beginning on page 4-140 of the Final Environmental Impact Statement and pages 5-26 through 5-28. The physical impact on land designated as part of the South Mountains has been minimized through design and much has already been done to replace or otherwise mitigate that effect. Access to the mountain would be maintained and multiple other mitigation measures would be implemented due in part to suggestions made by the Gila River Indian Community itself. The proposed mitigation for the South Mountains Traditional Cultural Property is discussed in the Final Environmental Impact

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26 (cont.)		Statement beginning on page 4-143, and measures to minimize harm to the South Mountains Traditional Cultural Property are discussed on page 5-27 of the Final Environmental Impact Statement. No mitigation was “rejected” as part of the environmental impact statement process. Certain community factions and members of the Gila River Indian Community have supported the selection of the No-Action Alternative; however, to be clear, such a recommendation is not a form of mitigation. This is comprehensively discussed in the section, <i>Cultural Resources</i>, beginning on page 4-128, and in Chapter 5, <i>Section 4(f) Evaluation</i>, beginning on page 5-1 of the Draft Environmental Impact Statement. The Gila River Indian Community submitted comments on the Draft Environmental Impact Statement in a letter dated July 3, 2013. This letter and the responses to the Gila River Indian Community comments may be found beginning on page B38 of Appendix 7, Volume III, to the Final Environmental Impact Statement.
27	Land Use	“Near-roadway health impacts” is a broad topic that encompasses air quality and other environmental and social effects, including noise. For air quality, the Draft and Final Environmental Impact Statements present information about the Preferred Alternative compared with the No-Action Alternative that is applicable to both tribal and non-tribal lands. The carbon monoxide analysis presented on page 4-65 of the Draft Environmental Impact Statement and updated on page 4-75 of the Final Environmental Impact Statement represents projected carbon monoxide concentrations along the project corridor, including those proposed interchange locations along the South Mountain Freeway corridor. The Final Environmental Impact Statement also includes a quantitative particulate matter (PM₁₀) hot-spot analysis that is discussed on page 4-76. The carbon monoxide and particulate matter (PM₁₀) analyses demonstrated that the proposed freeway would not contribute to any new localized violations, increase the frequency or severity of any existing violation, or delay timely attainment of the National Ambient Air Quality Standards or any required interim emissions reductions or other milestones. The emission modeling developed for the proposed action estimated that for the mobile source air toxics study area, there would be little difference in total annual emissions of mobile source air toxics emissions between the Preferred and No-Action Alternatives (less than a 1 percent difference) in 2025 and 2035. Regardless of alternative, modeled mobile source air toxics emissions would decrease by more than 80 percent relative to 2012 levels, despite a 47 percent increase in vehicle miles traveled in the Study Area compared with 2012 conditions (see discussion beginning on page 4-77 of the Final Environmental Impact Statement). The Federal Highway Administration does not have land use planning or zoning authority. Its Office of Planning does publish some resources related to smart growth, health in transportation planning, and other related topics; see <fhwa.dot.gov/planning/>. The Gila River Indian Community can also benefit from the experience of many local governments in the Phoenix area that have already made land use and zoning decisions for vacant land adjacent to both new and existing roadway facilities.

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28	Alternatives	In accordance with 40 Code of Federal Regulations § 1502.14, the Arizona Department of Transportation and Federal Highway Administration explored and evaluated all reasonable alternatives. Page 2-10 of the Draft Environmental Impact Statement discusses the path forward should alternatives on Gila River Indian Community land become available for study. Any alternative on Gila River Indian Community land must consider tribal sovereignty. Tribal sovereignty is based in the inherent authority of Native American tribes to govern themselves. While this notion of sovereignty is manifested in many areas, generally Native American land is held in trust by the United States. Native American communities have the authority to regulate land uses and activities on their lands. States have very limited authority over activities within tribal land (see page 2-1 of the Final Environmental Impact Statement). From a practical standpoint, this means that the Arizona Department of Transportation and Federal Highway Administration do not have the authority to survey tribal land, make land use (including transportation) determinations directly affecting tribal land, or condemn tribal land for public benefit through an eminent domain process.

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	and low-income populations.⁵ There is a growing body of evidence that low-income and minority communities are more vulnerable to pollution impacts than other communities, including deficits of both a physical and social nature that make the effects of environmental pollution more burdensome.⁶ Environmental justice concerns may arise from the potential human health, ecological, social, cultural, and economic impacts associated with a proposed project. According to the DEIS (page 4-167), the communities within the study area have a much higher minority composition (68%) compared to Maricopa County (41%). The DEIS states that all action alternatives would have direct but not disproportionate impacts on populations with environmental justice characteristics (see page 4-175), but this appears to be a premature and unsupported conclusion. The current analysis does not consider the full suite of potential impacts from the proposed project and how these impacts may disproportionately affect minority, low-income, and indigenous populations. The environmental justice analysis in the DEIS focuses mainly on relocations and displacements. The environmental justice analysis should reference air quality, noise, and other potential project impacts to communities living near the proposed alignments. Recommendations: 29 - Identify and document all environmental and human health impacts that may have a disproportionately high impact on minority populations, low-income populations, and/or indigenous populations. The environmental justice analysis should evaluate the direct, indirect, and cumulative impacts of each project alternative to these populations, and identify whether there may be disproportionately high and adverse human health or environmental effects. The analysis should incorporate relevant demographic, socioeconomic, environmental and health data, if available, to fully understand potential project impacts. - Evaluate the localized impacts from the construction and operation of each project alternative and how these impacts affect minority, low-income, and indigenous communities located near proposed project alignments. Communities that are closer to the proposed project alignments are at a higher risk of near-roadway exposure. Near-roadway exposure to air pollution is linked to a variety of adverse health outcomes including asthma and adverse birth and childhood outcomes.⁷ - Identify appropriate mitigation measures to reduce or eliminate any adverse impacts to minority, low-income and indigenous populations throughout the project’s construction and operation. Clearly identify project alternatives with the least impact to these populations. - Mitigation measures should be developed through open, collaborative processes that include the public and affected communities. Identifying mitigation measures responsive to community concerns and supported by affected communities could further protect these communities from any disproportionate and adverse impacts. ⁵ http://www.archives.gov/federal-register/executive-orders/pdf/12898.pdf ⁶ EPA Symposium on the Science of Disproportionate Environmental Health Impacts, March 17 - 19, 2010. The fourteen scientific reviews commissioned by EPA and published in the American Journal of Public Health are listed on EPA’s website: http://epa.gov/ncer/events/news/2011/10_25b_11_feature.html. The commissioned papers were published in the American Journal of Public Health in December 2011: http://ajph.aphapublications.org/toc/ajph/101/S1. See also EPA’s Framework for Cumulative Risk Assessment: http://www.epa.gov/raf/publications/pdfs/frmwkr_cum_risk_assmnt.pdf ⁷ Padmanabhan, N. & Glenn, B. August 2009. <i>EPA Research Focus on Health Effects of Near-Roadway Air Pollution</i>. Air and Waste Management Association, EM Magazine. Available at http://www.epa.gov/ord/ca/pdf/2009padmanabhan.pdf
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29	Environmental Justice	Executive Order 12898 on environmental justice requires that environmental justice principles be considered in federal programs, policies, and activities. In preparing the Draft Environmental Impact Statement, a careful and comprehensive review was undertaken to evaluate whether the project would have disproportionately high and adverse effects on minority populations, low-income populations, and/or indigenous populations. According to Federal Highway Administration Order 6640.23A, a disproportionately high and adverse effect on a minority or low-income population means the adverse effect is predominantly borne by such population or is appreciably more severe or greater in magnitude on the minority or low-income population than the adverse effect suffered by the non-minority or non-low-income population. In undertaking this evaluation as to whether the project would result in disproportionately high and adverse impacts on minority, low-income, and/or indigenous populations, in accordance with Federal Highway Administration Order 6640.23A, the beneficial and adverse effects of the project on the overall population, and on minority, low-income, and indigenous populations in particular, were reviewed in the sections of the Draft Environmental Impact Statement pertaining to <i>Land Use, Social Conditions, Displacements and Relocations, Economic Impacts, Air Quality, Noise, Cultural Resources, Visual Resources, Prime and Unique Farmlands, and Temporary Construction Impacts</i>. Consistent with the National Environmental Policy Act, mitigation was proposed to address potential adverse impacts of the project for the overall population in the Study Area, including minority populations, low-income populations, and/or indigenous populations. It was determined that there would be no disproportionately high and adverse effects on minority populations, low-income populations, and/or indigenous populations. The section, <i>Title VI and Environmental Justice</i>, beginning on page 4-29 in the Draft Environmental Impact Statement, presents acceptable methods, data, and assumptions to assess the potential for disproportionate adverse effects from the proposed action on certain populations including minority and low-income populations. In light of the comments received, the environmental justice and Title VI analyses in the Draft Environmental Impact Statement were reviewed, and the Final Environmental Impact Statement has been revised to discuss environmental justice and Title VI separately and to clarify how the conclusions in the <i>Environmental Justice and Title VI</i> section were reached (see pages 4-41 and 4-45 of the Final Environmental Impact Statement). The Final Environmental Impact Statement also clarifies potential impacts on minority, low-income, and/or indigenous populations in sections other than the <i>Environmental Justice and Title VI</i> section. For example, in the <i>Noise</i> section, the number of receivers affected that are located in census blocks or census block groups with environmental justice populations are identified (see text beginning on page 4-89 of the Final Environmental Impact Statement). With this clarification, conclusions on the subject in the Draft Environmental Impact Statement were validated in so far as there would be no disproportionately high and adverse impacts on minority, low-income, and/or indigenous environmental justice populations or disparate impacts to minority groups protected by Title VI. Potential impacts from each alternative are discussed in the Final Environmental Impact Statement. To the extent this comment suggests that a health risk assessment is required, the Arizona Department of Transportation and Federal Highway Administration respectfully disagree, as explained in response code #14.
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30	and low-income populations.⁵ There is a growing body of evidence that low-income and minority communities are more vulnerable to pollution impacts than other communities, including deficits of both a physical and social nature that make the effects of environmental pollution more burdensome.⁶ Environmental justice concerns may arise from the potential human health, ecological, social, cultural, and economic impacts associated with a proposed project. According to the DEIS (page 4-167), the communities within the study area have a much higher minority composition (68%) compared to Maricopa County (41%). The DEIS states that all action alternatives would have direct but not disproportionate impacts on populations with environmental justice characteristics (see page 4-175), but this appears to be a premature and unsupported conclusion. The current analysis does not consider the full suite of potential impacts from the proposed project and how these impacts may disproportionately affect minority, low-income, and indigenous populations. The environmental justice analysis in the DEIS focuses mainly on relocations and displacements. The environmental justice analysis should reference air quality, noise, and other potential project impacts to communities living near the proposed alignments. Recommendations: - Identify and document all environmental and human health impacts that may have a disproportionately high impact on minority populations, low-income populations, and/or indigenous populations. The environmental justice analysis should evaluate the direct, indirect, and cumulative impacts of each project alternative to these populations, and identify whether there may be disproportionately high and adverse human health or environmental effects. The analysis should incorporate relevant demographic, socioeconomic, environmental and health data, if available, to fully understand potential project impacts. - Evaluate the localized impacts from the construction and operation of each project alternative and how these impacts affect minority, low-income, and indigenous communities located near proposed project alignments. Communities that are closer to the proposed project alignments are at a higher risk of near-roadway exposure. Near-roadway exposure to air pollution is linked to a variety of adverse health outcomes including asthma and adverse birth and childhood outcomes.⁷ - Identify appropriate mitigation measures to reduce or eliminate any adverse impacts to minority, low-income and indigenous populations throughout the project’s construction and operation. Clearly identify project alternatives with the least impact to these populations. - Mitigation measures should be developed through open, collaborative processes that include the public and affected communities. Identifying mitigation measures responsive to community concerns and supported by affected communities could further protect these communities from any disproportionate and adverse impacts. ⁵ http://www.archives.gov/federal-register/executive-orders/pdf/12898.pdf ⁶ EPA Symposium on the Science of Disproportionate Environmental Health Impacts, March 17 - 19, 2010. The fourteen scientific reviews commissioned by EPA and published in the American Journal of Public Health are listed on EPA’s website: http://epa.gov/ncer/events/news/2011/10_25b_11_feature.html. The commissioned papers were published in the American Journal of Public Health in December 2011: http://ajph.aphapublications.org/toc/ajph/101/S1. See also EPA’s Framework for Cumulative Risk Assessment: http://www.epa.gov/raf/publications/pdfs/frmwkr_cum_risk_assmnt.pdf ⁷ Padmanabhan, N. & Glenn, B. August 2009. <i>EPA Research Focus on Health Effects of Near-Roadway Air Pollution</i>. Air and Waste Management Association, EM Magazine. Available at http://www.epa.gov/ord/ca/pdf/2009padmanabhan.pdf

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29 (cont.)		The comment makes reference to indigenous populations. As shown in Table 4-10, “<i>Environmental Justice Population Percentages, Affected Study Area Jurisdictions</i>,” on page 4-30 of the Final Environmental Impact Statement, indigenous populations are accounted for in the impact analyses. Further, Chapter 2, <i>Gila River Indian Community Coordination</i>, discloses the comprehensive nature of coordination efforts with the Gila River Indian Community. Important to note is the history of impact study on Gila River Indian Community land. For much of the study, the Gila River Indian Community did not permit any form of impact analyses of resources on its land as is its right as a sovereign nation (see page 2-1 of the Draft Environmental Impact Statement), and it did not wish to have any information about the Gila River Indian Community disclosed in the Draft Environmental Impact Statement. In 2007, right-of-entry was granted but expired 1 year later. In 2010, the permit was reissued to study an alignment on Gila River Indian Community land (which is discussed at length in Chapter 3, <i>Alternatives</i>) but was later withdrawn once consideration by the Gila River Indian Community for a Gila River Indian Community-located alignment was withdrawn. Despite the Gila River Indian Community’s directive to neither study nor report on Gila River Indian Community resources and assets, the potential for such impacts is highly unlikely. Populations would not be directly affected by the proposed action. As detailed in the <i>Cultural Resources</i> section starting on page 4-128 of the Draft Environmental Impact Statement, the proposed action may pose indirect impacts such as altered access to places of tradition. The Draft Environmental Impact Statement, however, includes a detailed review of alternatives considered to avoid impacts to cultural resources, including the South Mountains. See the Chapter 5 section, <i>Avoidance Alternatives for Public Parkland Resources of the South Mountains Afforded Protection under Section 4(f)</i>, beginning on page 5-16 of the Draft Environmental Impact Statement; Chapter 2, <i>Gila River Indian Community Coordination</i>; and Chapter 3, <i>Alternatives</i>. Additionally, mitigation developed in consultation with the Gila River Indian Community and other tribes has been committed to ensure that access to places of tradition would be preserved (see page 5-27 in the Draft Environmental Impact Statement). Further, in addition to access to the overall public hearing outreach efforts, Gila River Indian Community members also had specific access to Gila River Indian Community-specific outreach, which are detailed on page 6-24 of the Final Environmental Impact Statement.
30	Environmental Justice	Executive Order 12898 and Title VI of the Civil Rights Act of 1964 are discussed on pages 4-29 through 4-38 of the Draft Environmental Impact Statement and pages 4-29 through 4-45 of the Final Environmental Impact Statement. Please see the response to the above comment. The impacts from the construction and operation of the action alternatives were subjected to analyses with respect to both the overall population and minority, low-income, and indigenous communities located near proposed project alignments. In light of the comments received, the environmental justice and Title VI analyses in the Draft Environmental Impact Statement were reviewed, and the Final Environmental Impact Statement has been revised to discuss environmental justice and Title VI separately and to clarify how the conclusions in the <i>Environmental Justice and Title VI</i> section were reached. Regarding the statement concerning the impacts associated with construction and implementation of each action alternative, potential impacts on all population segments located near the proposed freeway are described in the Draft and Final Environmental Impact Statements. For example, the air quality assessment for the

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	and low-income populations.⁵ There is a growing body of evidence that low-income and minority communities are more vulnerable to pollution impacts than other communities, including deficits of both a physical and social nature that make the effects of environmental pollution more burdensome.⁶ Environmental justice concerns may arise from the potential human health, ecological, social, cultural, and economic impacts associated with a proposed project. According to the DEIS (page 4-167), the communities within the study area have a much higher minority composition (68%) compared to Maricopa County (41%). The DEIS states that all action alternatives would have direct but not disproportionate impacts on populations with environmental justice characteristics (see page 4-175), but this appears to be a premature and unsupported conclusion. The current analysis does not consider the full suite of potential impacts from the proposed project and how these impacts may disproportionately affect minority, low-income, and indigenous populations. The environmental justice analysis in the DEIS focuses mainly on relocations and displacements. The environmental justice analysis should reference air quality, noise, and other potential project impacts to communities living near the proposed alignments. Recommendations: • Identify and document all environmental and human health impacts that may have a disproportionately high impact on minority populations, low-income populations, and/or indigenous populations. The environmental justice analysis should evaluate the direct, indirect, and cumulative impacts of each project alternative to these populations, and identify whether there may be disproportionately high and adverse human health or environmental effects. The analysis should incorporate relevant demographic, socioeconomic, environmental and health data, if available, to fully understand potential project impacts. • Evaluate the localized impacts from the construction and operation of each project alternative and how these impacts affect minority, low-income, and indigenous communities located near proposed project alignments. Communities that are closer to the proposed project alignments are at a higher risk of near-roadway exposure. Near-roadway exposure to air pollution is linked to a variety of adverse health outcomes including asthma and adverse birth and childhood outcomes.⁷ • Identify appropriate mitigation measures to reduce or eliminate any adverse impacts to minority, low-income and indigenous populations throughout the project’s construction and operation. Clearly identify project alternatives with the least impact to these populations. • Mitigation measures should be developed through open, collaborative processes that include the public and affected communities. Identifying mitigation measures responsive to community concerns and supported by affected communities could further protect these communities from any disproportionate and adverse impacts. ⁵ http://www.archives.gov/federal-register/executive-orders/pdf/12898.pdf ⁶ EPA Symposium on the Science of Disproportionate Environmental Health Impacts, March 17 - 19, 2010. The fourteen scientific reviews commissioned by EPA and published in the American Journal of Public Health are listed on EPA’s website: http://epa.gov/ncer/events/news/2011/10_25b_11_feature.html. The commissioned papers were published in the American Journal of Public Health in December 2011: http://ajph.aphapublications.org/toc/ajph/101/S1. See also EPA’s Framework for Cumulative Risk Assessment: http://www.epa.gov/raf/publications/pdfs/frmwrk_cum_risk_assmnt.pdf ⁷ Padmanabhan, N. & Glenn, B. August 2009. <i>EPA Research Focus on Health Effects of Near-Roadway Air Pollution</i>. Air and Waste Management Association, EM Magazine. Available at http://www.epa.gov/ord/ca/pdf/2009padmanabhan.pdf

Code	Issue	Response
30 (cont.)		proposed freeway analyzed impacts from carbon monoxide and particulate matter (PM ₁₀) and followed U.S. Environmental Protection Agency guidelines. No violations of either the carbon monoxide or particulate matter (PM ₁₀) standards were identified, even at worst-case locations along the project corridor. Thus, the carbon monoxide and particulate matter (PM ₁₀) analyses demonstrated that the proposed freeway would not contribute to any new localized violations, increase the frequency or severity of any existing violation, or delay timely attainment of the National Ambient Air Quality Standards or any required interim emissions reductions or other milestones. For mobile source air toxics, the analysis showed that for the Study Area, constructing the freeway would have a marginal effect on annual emissions in 2025 and 2035 (less than a 1 percent difference in total annual emissions between the Preferred Alternative and No-Action Alternative). Regardless of alternative, modeled mobile source air toxics emissions would decrease by more than 80 percent relative to 2012 levels, despite a 47 percent increase in vehicle miles traveled in the Study Area compared with 2012 conditions (see discussion beginning on page 4-77 of the Final Environmental Impact Statement). The air quality analyses were updated for the Final Environmental Impact Statement, including a quantitative particulate matter (PM ₁₀) analysis, and are more fully described beginning on page 4-68 of the Final Environmental Impact Statement. Congestion relief resulting from the proposed freeway would provide localized air quality emissions reductions on area freeways and arterial streets and at interchanges, benefiting users of area highways and those living near congested roads. To the extent this comment suggests that a health risk assessment is required, the Arizona Department of Transportation and Federal Highway Administration respectfully disagree, as explained in response code #14.
31	Environmental Justice	Executive Order 12898 and Title VI of the Civil Rights Act of 1964 are discussed on pages 4-29 through 4-38 of the Draft Environmental Impact Statement and pages 4-29 through 4-45 of the Final Environmental Impact Statement. As detailed in the Draft Environmental Impact Statement, there would be no distinct disproportionately high and adverse impacts on minority populations, low-income populations, and/or indigenous environmental justice populations or disparate impacts to minority groups protected by Title VI, so additional mitigation, beyond the mitigation measures proposed in the Draft and Final Environmental Impact Statements, is not required. See <i>Environmental Justice and Title VI</i> , beginning on page 4-29 of the Draft and Final Environmental Impact Statements. The beneficial and adverse effects of the project on the overall population, and on minority, low-income, and indigenous environmental justice populations or disparate impacts to minority groups protected by Title VI, were reviewed for in the sections of the Draft Environmental Impact Statement pertaining to <i>Land Use, Social Conditions, Displacements and Relocations, Economic Impacts, Air Quality, Noise, Cultural Resources, Visual Resources, Prime and Unique Farmlands, and Temporary Construction Impacts</i> . The impacts of the various alternatives on the overall population as well as minority, low-income, and indigenous environmental justice populations or disparate impacts to minority groups protected by Title VI were also addressed. The conclusions were summarized in the section <i>Environmental Justice and Title VI</i> , beginning on page 4-29 of the Final Environmental Impact Statement. In light of the comments received, the environmental justice and Title VI analyses in the Draft Environmental Impact Statement were reviewed, and the Final Environmental Impact Statement has been revised to discuss environmental justice and Title VI separately and to clarify how the conclusions in the <i>Environmental Justice and Title VI</i> section were reached.

(Response 31 continues on next page)

Code	Comment Document
	<u>Impacts to Aquatic Resources</u> All of the Western Section alternatives involve placing a roadway bridge over the Salt River and the construction of piers in the channel, with stated impacts varying from 17 to 26 acres depending on which alternative is chosen. The Salt River channel functions as a surface water conveyance system and provides attenuation of flood flows, as well as sediment and nutrient retention from discharge flows, thus serving a valuable water quality function. The Eastern Section alternative involves potential filling of 51 ephemeral washes that originate in the Phoenix South Mountain Park and drain to the south or west, with a potential hydrological connection to the Gila River. Ephemeral washes perform a diversity of hydrologic and biogeochemical functions that directly affect the integrity and functional condition of higher-order waters downstream. Washes provide hydrologic connectivity within the watershed, facilitating the movement of water, sediment, nutrients, wildlife, and plant propagules throughout the watershed. Washes are responsible for a large portion of basin ground-water recharge in arid and semi-arid regions through channel infiltration and transmission losses. These ephemeral systems contribute to the biogeochemical functions of waters within their watershed by storing, cycling, transforming, and transporting elements and compounds. Ephemeral washes also provide habitat for breeding, shelter, foraging and movement of wildlife.⁸ The DEIS does not provide sufficient information to determine accurate impacts to aquatic resources. Acreage of waters impacted appears to be estimated and not accurately delineated. While the DEIS states that all waters were determined to be jurisdictional in 2003, a current jurisdictional determination by the U.S. Army Corps of Engineers (Corps) has not been made. Furthermore, the DEIS does not provide an estimate of the indirect effects to waters that may result from the proposed project. The project proposes to alter the natural surface hydrology though the construction of detention basins and diversions around the freeway to convey and store stormwater originating upgradient of the freeway as well as from the freeway itself. The elimination of minor washes on the northern side of the freeway will likely result in additional lost acreage of waters to the south. Other potential indirect effects include: 1) changes to hydrology; 2) changes to sediment transport; 3) decreases in water quality/quantity from the impairment of floodplain and ecosystem services including water filtration, groundwater recharge, and flood attenuation; 4) disruption of hydrological and ecological connectivity; 5) loss of wildlife and plant habitat due to the consolidation and elimination of washes; and 5) decreases in biodiversity and ecosystem stability. Clean Water Act Compliance The basic premise of the Clean Water Act Section 404 permitting program is that no discharge of dredged or fill material into waters of the United States shall be permitted if (1) a practicable alternative exists that is less damaging to the aquatic environment, or (2) the discharge would cause the nation’s waters to be significantly degraded (40 CFR 230). When applying for a Section 404 permit, the applicant must demonstrate that the proposed action is the least environmentally damaging practicable alternative (LEDPA), while also not causing or contributing to significant degradation of the aquatic ecosystem. ⁸ See Levick, L., J. Fonseca, D. Goodrich, M. Hernandez, D. Semmens, J. Stromberg, R. Leidy, M. Scianni, D. P. Guertin, M. Tluczek, and W. Kepner. 2008. <i>The Ecological and Hydrological Significance of Ephemeral and Intermittent Streams in the Arid and Semi-arid American Southwest</i>. U.S. EPA and USDA/ARS Southwest Watershed Research Center, EPA/600/R-08/134, ARS/233046, 116 pp.

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31 (cont.)		In response to the comment regarding the identification of action alternatives with the least impact on populations, the impacts of each alternative on all population segments are described in the Draft and Final Environmental Impact Statements. Identifying the alternative with the least impact on populations is not required. With regard to the portion of the comment related to community involvement and collaboration in the identification of mitigation measures, the public outreach for the proposed action has been extensive. Through these efforts, as disclosed in the Draft and Final Environmental Impact Statements, the public played an important role in affecting design and location of the action alternatives as well as in establishing mitigation. Additionally, consultation has occurred with Gila River Indian Community government officials, the Tribal Historic Preservation Officer, the Cultural Resource Management Program, other tribes, and the State Historic Preservation Office and has led to concurrence from the Gila River Indian Community Tribal Historic Preservation Office and the State Historic Preservation Office on National Register of Historic Places eligibility recommendations (including traditional cultural properties such as the South Mountains), project effects, and proposed mitigation and measures to minimize harm. This consultation has been ongoing and will continue until any commitments in a record of decision are completed, if an action alternative is the Selected Alternative. The section, <i>Public Involvement Actions</i>, beginning on page 6-6 of the Draft Environmental Impact Statement, notes over 200 public presentations, 12 public meetings at-large, numerous newsletters, project Web site access, hotlines, and 800 news articles. The outreach established comprehensive access to the environmental impact statement process for the public at-large including all segments of the population. As detailed throughout Chapter 6, <i>Comments and Coordination</i>, all comments were carefully considered as part of the environmental impact statement process. The public engagement, disclosure, and process transparency has been and will continue to be exceptional for the proposed action. The Draft Environmental Impact Statement further points out the nature of public engagement that would occur after completion of the National Environmental Policy Act process in future project development phases. To clarify the efforts to allow environmental justice and Title VI populations access to the Environmental Impact Statement process, these efforts are specifically discussed on pages 4-38 and 4-44 of the Final Environmental Impact Statement, respectively.

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	As described in the DEIS, the preferred alternative, W59, impacts 26 acres of the Salt River Channel, as compared with 19 acres and 17 acres for the other two alternatives. The DEIS states that the W59 alternative will ultimately have minimal impacts to waters since it involves placing only bridge piers in the river channel. However, the DEIS does not evaluate the specific impacts under each alternative or demonstrate how the preferred alternative, despite having a greater acreage of impacts, is the LEDPA. Additionally, the current alternative analysis does not address the impacts to the functional values of waters that would be impacted under each alternative, and does not include an analysis of design crossings (e.g., bridges and culverts) to address avoidance and minimization of impacts. Recommendations: 32 33 • Include the findings of a Corps of Engineers’ verified jurisdictional delineation for the proposed project. • Include an alternatives analysis which demonstrates that the preferred alternative is the least environmentally damaging practicable alternative, including an analysis of indirect impacts to waters. • Include a functional assessment of impacted waters for each alternative, discuss how those functions will be impacted, and explore mitigation measures to maintain functions. • Provide hydrological modeling to demonstrate that downstream flows will not be disrupted due to proposed changes to any natural washes, or the excavation of large amounts of sediment. • Provide a comprehensive discussion of mitigation measures, including: ○ A description of how impacts will be avoided or minimized. ○ Consideration of a commitment to maintain natural washes, in their present location and natural form and including adequate natural buffers, to the maximum extent practicable. ○ An analysis of avoidance and minimization options for each alternative, such as the use of bridges and soft bottom culverts. ○ A mitigation plan to compensate for any unavoidable impacts to waters of the United States. Wildlife Habitat and Connectivity The DEIS recognizes that there is growing support for maintaining habitat connectivity as it pertains to wildlife movement, and notes that significant work has already been completed in Arizona to identify essential landscape linkages for wildlife. The DEIS identifies the Salt River, as well as the area between South Mountain and the Sierra Estrella Mountains, as potentially important linkage areas for wildlife movement in the project area. The DEIS further acknowledges that the proposed freeway would cross the Salt River in an area proposed for future habitat restoration. This restoration project, known as the Rio Salado Oeste project, is a major river restoration project that would result in a continuous riparian corridor, connecting riparian and wetland habitats downstream with similar areas upstream. Currently, riparian areas in this stretch of the river are limited, and include the adjacent Pee Posh wetlands bald eagle breeding area, as well as several gravel pit ponds. The DEIS does not clearly demonstrate how the project alternatives could adversely affect these wildlife corridors and proposed restoration activities, or how impacts to these features will be addressed. Further, the DEIS provides little discussion of the many opportunities for the project to enhance habitat connectivity in the project area through the use of wildlife overcrossings, exclusionary fencing, and other design commitments that have been successful in facilitating the safe movement of wildlife across other Arizona roadway projects. This is particularly important in light of the projects proposal to cut through multiple
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Code	Issue	Response
32	Waters of the United States	As required under 33 Code of Federal Regulations § 323.3, and as documented on page 4-108 of the Draft Environmental Impact Statement, a commitment was made between publication of the Draft Environmental Impact Statement and Final Environmental Impact Statement to revisit the field delineation of waters of the United States. The results of this effort are discussed in the prologue to the Final Environmental Impact Statement (page xiv) and are more fully described on page 4-116 of the Final Environmental Impact Statement. A field delineation of jurisdictional waters for the Preferred Alternative (E1 and W59) was conducted in the summer of 2013 to identify jurisdictional waters and to define the jurisdictional limits for the Clean Water Act Section 404 permitting. A preliminary jurisdictional determination was submitted to the U.S. Army Corps of Engineers in January 2014 in accordance with U.S. Army Corps of Engineers and Arizona Department of Transportation guidelines. The U.S. Army Corps of Engineers approved the jurisdictional determination in March 2014. The U.S. Army Corps of Engineers has been engaged in the environmental impact statement process for the proposed action since its inception (early comments as part of the scoping process, as an example, are cited on page 6-3 of the Draft Environmental Impact Statement). As a cooperating agency, the U.S. Army Corps of Engineers has had regular representation at project meetings, has reviewed early versions of the purpose and need and alternatives chapters, and has collaborated closely with the project team in assessing pertinent impacts. This is discussed on page 3-27 of the Draft Environmental Impact Statement, under the section, <i>Compliance with Section 404(b)(1) Guidelines</i>, as well as in the agency’s lack of substantive comments on the Administrative Draft Environmental Impact Statement. In short, the U.S. Army Corps of Engineers has been an active participant in and supportive of the environmental impact statement process undertaken.
33	Waters of the United States	According to Clean Water Act Section 404(b)(1), the U.S. Army Corps of Engineers is required to select the least environmentally damaging practicable alternative after considering cost, existing technologies, and logistics in light of the overall project purpose, in cases where an individual permit is required. As noted on page 4-110 of the Draft Environmental Impact Statement, the U.S. Army Corps of Engineers has been involved in the alternatives analysis for the proposed action, as required by Section 404(b)(1). Based on the results of the field delineation of waters of the United States conducted during the summer of 2013 and subsequent consultation with the U.S. Army Corps of Engineers, disturbances to individual jurisdictional waters were confirmed to require an individual permit for the proposed action (see page 4-118 of the Final Environmental Impact Statement). However, only washes within the E1 Alternative would require an individual permit. All disturbances to jurisdictional waters caused by construction of the Western Section action alternatives would be within the limits for Nationwide Permit Number 14, Linear Transportation Projects. Furthermore, the Draft Environmental Impact Statement concluded that, although the area of impact for the Preferred Alternative in the Western Section is higher than the other action alternatives when comparing the acreage of the bridge design needed to cross the water, the actual physical impact on jurisdictional waters in the region would be negligible because the only permanent disturbances would be from bridge pier placement. This is because the smaller pier placements would occupy far less area than the acreage numbers based on the area of the bridge design needed to cross the waterways that were the source of comparison between right-of-way footprints among action alternatives in the Draft Environmental Impact Statement. As noted on page 4-117 of the Final

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	As described in the DEIS, the preferred alternative, W59, impacts 26 acres of the Salt River Channel, as compared with 19 acres and 17 acres for the other two alternatives. The DEIS states that the W59 alternative will ultimately have minimal impacts to waters since it involves placing only bridge piers in the river channel. However, the DEIS does not evaluate the specific impacts under each alternative or demonstrate how the preferred alternative, despite having a greater acreage of impacts, is the LEDPA. Additionally, the current alternative analysis does not address the impacts to the functional values of waters that would be impacted under each alternative, and does not include an analysis of design crossings (e.g., bridges and culverts) to address avoidance and minimization of impacts. Recommendations: • Include the findings of a Corps of Engineers’ verified jurisdictional delineation for the proposed project. • Include an alternatives analysis which demonstrates that the preferred alternative is the least environmentally damaging practicable alternative, including an analysis of indirect impacts to waters. • Include a functional assessment of impacted waters for each alternative, discuss how those functions will be impacted, and explore mitigation measures to maintain functions. • Provide hydrological modeling to demonstrate that downstream flows will not be disrupted due to proposed changes to any natural washes, or the excavation of large amounts of sediment. • Provide a comprehensive discussion of mitigation measures, including: ○ A description of how impacts will be avoided or minimized. ○ Consideration of a commitment to maintain natural washes, in their present location and natural form and including adequate natural buffers, to the maximum extent practicable. ○ An analysis of avoidance and minimization options for each alternative, such as the use of bridges and soft bottom culverts. ○ A mitigation plan to compensate for any unavoidable impacts to waters of the United States. <u>Wildlife Habitat and Connectivity</u> The DEIS recognizes that there is growing support for maintaining habitat connectivity as it pertains to wildlife movement, and notes that significant work has already been completed in Arizona to identify essential landscape linkages for wildlife. The DEIS identifies the Salt River, as well as the area between South Mountain and the Sierra Estrella Mountains, as potentially important linkage areas for wildlife movement in the project area. The DEIS further acknowledges that the proposed freeway would cross the Salt River in an area proposed for future habitat restoration. This restoration project, known as the Rio Salado Oeste project, is a major river restoration project that would result in a continuous riparian corridor, connecting riparian and wetland habitats downstream with similar areas upstream. Currently, riparian areas in this stretch of the river are limited, and include the adjacent Pee Posh wetlands bald eagle breeding area, as well as several gravel pit ponds. The DEIS does not clearly demonstrate how the project alternatives could adversely affect these wildlife corridors and proposed restoration activities, or how impacts to these features will be addressed. Further, the DEIS provides little discussion of the many opportunities for the project to enhance habitat connectivity in the project area through the use of wildlife overcrossings, exclusionary fencing, and other design commitments that have been successful in facilitating the safe movement of wildlife across other Arizona roadway projects. This is particularly important in light of the projects proposal to cut through multiple
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Code	Issue	Response
33 (cont.)	Waters of the United States	Environmental Impact Statement, the W59 Alternative would disturb less than 0.5 acre when considering only the bridge piers (as was done in the jurisdictional delineations approved by the U.S. Army Corps of Engineers). The lack of prudent and feasible alternatives to the E1 Alternative means that avoidance of waters of the United States would not be practicable; therefore, in consultation with the U.S. Army Corps of Engineers during project design, minimization of impacts would be achieved and unavoidable impacts would be mitigated to the extent reasonable and practicable. These steps are outlined beginning on page 4-118 of the Final Environmental Impact Statement and the U.S. Army Corps of Engineers has concurred with this approach.
34	Waters of the United States	According to 33 Code of Federal Regulations § 323.3, a permit is required for discharges of dredged or fill material into waters of the United States. As noted on page 4-110 of the Draft Environmental Impact Statement, as design proceeds, the Arizona Department of Transportation would prepare and submit an application to the U.S. Army Corps of Engineers for a permit under Section 404 of the Clean Water Act. As noted in the previous response, the lack of prudent and feasible alternatives to the E1 Alternative means that avoidance of waters of the United States would not be practicable; therefore, in consultation with the U.S. Army Corps of Engineers during project design, minimization of impacts would be achieved and unavoidable impacts would be mitigated to the extent reasonable and practicable. These steps are outlined beginning on page 4-118 of the Final Environmental Impact Statement and the U.S. Army Corps of Engineers has concurred with this approach.
35	Hydrology	Consistent with the Arizona Department of Transportation’s 2012 <i>Roadway Design Guidelines</i>, preliminary hydrologic analysis has been performed. The project would pose no differences in treatment of hydrologic conditions than would other Phoenix metropolitan area projects. Experts in the field have adequately assessed the issue, which is neither an issue to be deemed a substantial adverse effect or a differentiator in the performance of alternatives. As noted on page 4-107 of the Draft Environmental Impact Statement, if an action alternative were to become the Selected Alternative, it would need comprehensive hydrologic, hydraulic, sediment transport, and erosion-related assessments regarding potential 100-year flood effects associated with ephemeral washes. Results would provide information necessary to make a determination regarding what mitigation measures would need to be implemented. Measures may include physical structures associated with the freeway such as culverts. These measures would be determined during the design phase.
36	Waters of the United States	According to Clean Water Act Section 404(b)(1), the U.S. Army Corps of Engineers is required to select the least environmentally damaging practicable alternative after considering cost, existing technologies, and logistics in light of the overall project purpose, in cases where an individual permit is required. As noted on page 4-118 of the Final Environmental Impact Statement, as design proceeds, the Arizona Department of Transportation would prepare and submit an application to the U.S. Army Corps of Engineers for a permit under Section 404 of the Clean Water Act and the U.S. Army Corps of Engineers has concurred with this approach. In consultation with the U.S. Army Corps of Engineers during project design, minimization of impacts would be achieved and unavoidable impacts would be mitigated to the extent reasonable and practicable. The general and special conditions of the Section 404 Individual Permit would minimize impacts on waters of the United States to the extent practicable. Detailed mitigation measures, including those noted in the comment, are described beginning on page 4-118 of the Final Environmental Impact Statement.

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	ridgelines of South Mountain in an area known to be the last remaining connection for wildlife to move between South Mountain and the Sierra Estrella Mountains. Recommendations: 37 38 39 • Provide additional qualitative information on any unavoidable impacts to wildlife movement corridors and proposed restoration activities in the Salt River. • Document coordination with Fish and Wildlife Service and Arizona Department of Game and Fish regarding appropriate avoidance, wildlife crossings, and mitigation measures to address these impacts. • Include specific design commitments that: 1) remove wildlife movement barriers; 2) enhance use of identified wildlife corridors; and 3) provide crossings with suitable habitat and topography to accommodate multiple species. • Describe specific project elements that would be constructed to enable wildlife connectivity, including types of features and approximate locations. • Commit to replacing any riparian and wetland habitat anticipated to be lost as a result of this project prior to project construction in order to avoid impacting occupancy and productivity of the adjacent Pee Posh bald eagle breeding area. • Provide further details regarding how stormwater runoff from the proposed freeway could be used in irrigating future restoration projects.
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Code	Issue	Response
37	Biological Resources/Waters of the United States	Riparian and wetland habitat would be replaced in compliance with the Section 404 Clean Water Act nationwide permit received for the proposed action in the Salt River, as required by 33 Code of Federal Regulations § 323.3. This information is noted on page 4-118 of the Final Environmental Impact Statement. As noted on page 4-15 of the Draft Environmental Impact Statement, the City of Phoenix is aware of, has planned for, and has incorporated the proposed South Mountain Freeway in the City of Phoenix <i>General Plan</i> and in conceptual plans for the Rio Salado Oeste project (see Project Features Map in Appendix 4-8 of the Final Environmental Impact Statement). As noted on page 4-15 of the Draft Environmental Impact Statement and as agreed upon by the Bureau of Land Management, U.S. Army Corps of Engineers, and City of Phoenix, the project team would continue to consult with those entities to coordinate design efforts to minimize impacts on the proposed uses of the Rio Salado Oeste project (see Appendix 4-8 of the Final Environmental Impact Statement).
38	Scoping	Early and open scoping pursuant to 40 Code of Federal Regulations § 1501.7 is documented throughout the Draft and Final Environmental Impact Statements. Coordination efforts with the U.S. Fish and Wildlife Service and Arizona Game and Fish Department are documented throughout the <i>Biological Resources</i> section of the Final Environmental Impact Statement. Connectivity is planned to allow wildlife movement beneath the freeway. This is described in the text box, “ <i>Habitat Connectivity and the Proposed Action</i> ”, on page 4-137 and in the section, <i>Habitat Connectivity</i> , on page 4-137 of the Final Environmental Impact Statement. Crossing structures are planned along major movement corridors (see Figure 4-38, on page 4-126, and the discussion on page 4-137 of the Final Environmental Impact Statement) and would provide connectivity between the South Mountains and the Sierra Estrella. Wildlife-friendly culvert design information would be considered during the design of the drainage and crossing structures for the freeway (see <i>Mitigation</i> , beginning on page 4-138 of the Final Environmental Impact Statement). The Federal Highway Administration and Arizona Department of Transportation have submitted the Biological Evaluation to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and Gila River Indian Community’s Department of Environmental Quality to continue coordination regarding wildlife concerns as a result of the freeway’s potential implementation.
39	Biological Resources	The National Environmental Policy Act does not require the proposed action to improve the baseline condition. In correspondence, the Arizona Game and Fish Department (see page A139 in Appendix 1-1 of the Final Environmental Impact Statement) stated 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 in the areas affected (supported by data presented in the sidebar, “ <i>Existing versus planned land use</i> ”, on page 4-3 of the Final Environmental Impact Statement, showing the projected conversion of land in the Study Area to nonagricultural uses) will continue to inhibit movement between the South Mountains and the Sierra Estrella. Further, the comment requests enhancement of movement corridors, which indicates the historic habitat has already been adversely affected. Therefore, the current state of habitat limits is the baseline condition under consideration. It is not the obligation of the proposed action to mitigate impacts caused by other unrelated actions. Text beginning on page 4-138 of the Final Environmental Impact Statement discusses mitigation commitments for the proposed action, including continued coordination with the U.S. Fish and Wildlife Service and Arizona Game and Fish Department on wildlife crossing design.

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	ridgelines of South Mountain in an area known to be the last remaining connection for wildlife to move between South Mountain and the Sierra Estrella Mountains. <i>Recommendations:</i> • Provide additional qualitative information on any unavoidable impacts to wildlife movement corridors and proposed restoration activities in the Salt River. • Document coordination with Fish and Wildlife Service and Arizona Department of Game and Fish regarding appropriate avoidance, wildlife crossings, and mitigation measures to address these impacts. • Include specific design commitments that: 1) remove wildlife movement barriers; 2) enhance use of identified wildlife corridors; and 3) provide crossings with suitable habitat and topography to accommodate multiple species. • Describe specific project elements that would be constructed to enable wildlife connectivity, including types of features and approximate locations. • Commit to replacing any riparian and wetland habitat anticipated to be lost as a result of this project prior to project construction in order to avoid impacting occupancy and productivity of the adjacent Pee Posh bald eagle breeding area. • Provide further details regarding how stormwater runoff from the proposed freeway could be used in irrigating future restoration projects.
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Code	Issue	Response
40	Biological Resources	These elements are discussed on pages 4-137 and 5-27 of the Final Environmental Impact Statement. Potential locations of multiuse crossings are presented in Figure 4-38 on page 4-126 of the Final Environmental Impact Statement.
41	Biological Resources	The general and special conditions of the Section 404 Individual Permit obtained pursuant to 33 Code of Federal Regulations § 323.3 would minimize impacts on waters of the United States to the extent practicable. The Bald and Golden Eagle Protection Act protects bald eagles in the Study Area. Riparian and wetland habitat would be replaced in compliance with any Clean Water Act permit conditions as noted beginning on page 4-118 of the Final Environmental Impact Statement. This compliance is sufficient for the purposes of the environmental impact statement process. The Pee Posh bald eagle breeding area is discussed in the Draft Environmental Impact Statement on page 4-124, but not by name. The eagle information has been updated based on comments received on the Draft Environmental Impact Statement and may be found on page 4-136 of the Final Environmental Impact Statement; however, the discussion of impacts resulting from the action alternatives is largely unchanged from page 4-124 of the Draft Environmental Impact Statement. Namely, although the action alternatives are not expected to affect the nesting activities of these eagles because of the project’s distance from the nest, the project may affect their foraging behavior along the Salt River when foraging opportunities exist near action alternatives.
42	Biological Resources	As discussed on page 4-125 of the Draft Environmental Impact Statement, the City of Phoenix and U.S. Army Corps of Engineers have anticipated a South Mountain Freeway crossing of the Rio Salado Oeste restoration project and view stormwater runoff from the proposed freeway as an opportunity to “irrigate” the river habitat. Also as discussed on page 4-125 of the Draft Environmental Impact Statement, as planning would progress, the City of Phoenix and U.S. Army Corps of Engineers have agreed to coordinate with the Arizona Department of Transportation on enhancement opportunities for the proposed action (see Appendix 4-8 in the Final Environmental Impact Statement).

TRIBAL ENTITY COMMENTS AND RESPONSES

Code	Comment Document
1	 Gregory Mendoza Governor Stephen Roe Lewis Lieutenant Governor GILA RIVER INDIAN COMMUNITY Executive Office "A New Generation of Leadership Serving the People" July 11, 2013 South Mountain Study Team Arizona Department of Transportation 1655 West Jackson Street, MD 126F Phoenix, Arizona 85007 Dear South Mountain Study Team: The Gila River Indian Community (Community) hereby submits its comments on the Draft Environmental Impact Statement (DEIS) for the proposed South Mountain 202 Freeway Project (Project). It is the firm position of the Community that the Arizona Department of Transportation (ADOT) should select the No-Action Alternative to avoid irreversible impacts to cultural resources and Traditional Cultural Properties and to protect the health, safety, welfare, and environment of the Community and its members. In addition, the DEIS fails to adequately analyze an alternative that avoids impacts to South Mountain. Finally, while the Community has objected to a Project alignment on its Reservation lands, ADOT and the Federal Highway Administration maintain their obligations to study the Project's impacts on Community lands. The DEIS fails, however, in many environmental resource areas, to adequately analyze the impacts of the Project on the Community's Reservation and its members. Thank you for your consideration of the Community's comments. Sincerely, Gregory Mendoza, Governor Gila River Indian Community 525 West Gu u Ki • Post Office Box 97 • Sacaton, Arizona 85147 • Telephone: (520) 562-9841 • Fax Line: (520) 562-9849 web: www.gilariver.org

Code	Issue	Response
1		Comment noted. Responses to specific comments are provided on the following pages.

Code	Comment Document
	COMMENTS OF THE GILA RIVER INDIAN COMMUNITY ON THE SOUTH MOUNTAIN 202 FREEWAY DRAFT ENVIRONMENTAL IMPACT STATEMENT July 03, 2013 The Gila River Indian Community (Community or GRIC) submits its comments on the Draft Environmental Impact Statement (DEIS) for the proposed South Mountain 202 Freeway Project (Project). The Community is a Federally-recognized Indian Nation located south of Phoenix, Arizona, with reservation lands encompassing approximately 372,000 acres and approximately 21,000 enrolled members. The Eastern Section of the proposed Project is adjacent to the Community's Reservation border. In February 2012, the Community held a referendum to allow tribal members to vote on whether the eastern portion of the Project should be built on Community land, be built off Community land, or not be built at all. Community members voted in favor of the Arizona Department of Transportation (ADOT) not building the Project. Therefore, it is the firm position of the Community that ADOT should select the No-Action Alternative to avoid irreversible impacts to cultural resources and Traditional Cultural Properties (TCPs) and to protect the health, safety, welfare, and environment of the Community and its members. While the Community maintains its position that ADOT should not build the Project, as discussed in more detail in sections II and III below, the Community also believes that the DEIS is deficient in several key respects. First, ADOT has failed to adequately analyze an alternative that avoids impacts to South Mountain. Second, the DEIS fails, in many environmental resource areas, to adequately analyze the impacts of the Project on the Community's Reservation and its members. <u>I. GRIC SUPPORTS THE NO ACTION ALTERNATIVE.</u> The Community has significant concerns regarding the impacts of the Eastern Section of the Project on the Community's environment, cultural resources and TCPs. Unlike the Western Section of the Project, where ADOT studied five alternative alignments, the DEIS studies only one alignment in the Project's Eastern Section. The Eastern Alignment alternative, known as E-1, travels along the northern boundary of the Community's Reservation. Because the DEIS fails to include any other build alternatives in the Eastern Section, the No Action Alternative is the only alternative evaluated in the DEIS that will provide adequate protections to the Community and its resources. Alternative E-1 will have an unacceptable impact on South Mountain, one of the Community's most significant and important TCPs that figures prominently in oral traditions of the Community. Traditional cultural properties are defined as historic sites that are important because of "their association with cultural practices or beliefs of a living community that (a) are rooted in the community's history, and (b) are important in maintaining the continuing cultural identity of the community" (National Register Bulletin 38). In addition, as identified in the DEIS, the cultural significance of South Mountain causes it to be protected under Section 106 of the National Historic Preservation Act.

Code	Issue	Response
2		Comment noted. Specific comments are addressed below.
3	Alternatives	Several action alternatives were subject to the alternatives development and screening process; not just the E1 Alternative and alternatives located on the Community (Figure 3-6 on page 3-10 of the Final Environmental Impact Statement illustrates a representation of such alternatives). Ultimately, the other alternatives (besides the E1 Alternative) were eliminated from further study in the screening process and the Gila River Indian Community decided not to give permission to develop alternatives on its land (see Final Environmental Impact Statement page 3-25). The E1 Alternative when combined with the W59, W71, and W101 (and its options) Alternatives in the western section represents three distinct action alternatives from project termini to project termini, and therefore, represents a full range of reasonable alternatives for detailed study in the Draft and Final Environmental Impact Statements. Therefore, the Arizona Department of Transportation, with concurrence from the Federal Highway Administration, identified the E1 Alternative as the eastern section of the Preferred Alternative (which includes the W59 Alternative in the western section of the Study Area). In reaching its determination, the Arizona Department of Transportation sought to balance its responsibilities to address regional mobility needs while being fiscally responsible and sensitive to local communities The comment stating the Draft Environmental Impact Statement's failure to address many environmental resource areas is addressed by specific comments appearing below.
4	Alternatives	The No-Action Alternative was included in the Draft and Final Environmental Impact Statements for detailed study to compare impacts of the action alternatives with the consequences of doing nothing (impacts can result from choosing to do nothing). As stated on page 3-40 of the Final Environmental Impact Statement, the No-Action Alternative would not satisfy the purpose and need of the proposed action because it would result in further difficulty in gaining access to adjacent land uses, increased difficulty in gaining access to Interstate and regional freeway systems from the local arterial street network, increased levels of congestion-related impacts, continued degradation in performance of regional freeway-dependent transit services, increased trip times, and higher user costs. Further, the No-Action Alternative would be inconsistent with Maricopa Association of Governments' and local jurisdictions' long-range planning and policies.

Code	Comment Document
	COMMENTS OF THE GILA RIVER INDIAN COMMUNITY ON THE SOUTH MOUNTAIN 202 FREEWAY DRAFT ENVIRONMENTAL IMPACT STATEMENT July 03, 2013 The Gila River Indian Community (Community or GRIC) submits its comments on the Draft Environmental Impact Statement (DEIS) for the proposed South Mountain 202 Freeway Project (Project). The Community is a Federally-recognized Indian Nation located south of Phoenix, Arizona, with reservation lands encompassing approximately 372,000 acres and approximately 21,000 enrolled members. The Eastern Section of the proposed Project is adjacent to the Community's Reservation border. In February 2012, the Community held a referendum to allow tribal members to vote on whether the eastern portion of the Project should be built on Community land, be built off Community land, or not be built at all. Community members voted in favor of the Arizona Department of Transportation (ADOT) not building the Project. Therefore, it is the firm position of the Community that ADOT should select the No-Action Alternative to avoid irreversible impacts to cultural resources and Traditional Cultural Properties (TCPs) and to protect the health, safety, welfare, and environment of the Community and its members. While the Community maintains its position that ADOT should not build the Project, as discussed in more detail in sections II and III below, the Community also believes that the DEIS is deficient in several key respects. First, ADOT has failed to adequately analyze an alternative that avoids impacts to South Mountain. Second, the DEIS fails, in many environmental resource areas, to adequately analyze the impacts of the Project on the Community's Reservation and its members. <u>I. GRIC SUPPORTS THE NO ACTION ALTERNATIVE.</u> The Community has significant concerns regarding the impacts of the Eastern Section of the Project on the Community's environment, cultural resources and TCPs. Unlike the Western Section of the Project, where ADOT studied five alternative alignments, the DEIS studies only one alignment in the Project's Eastern Section. The Eastern Alignment alternative, known as E-1, travels along the northern boundary of the Community's Reservation. Because the DEIS fails to include any other build alternatives in the Eastern Section, the No Action Alternative is the only alternative evaluated in the DEIS that will provide adequate protections to the Community and its resources. Alternative E-1 will have an unacceptable impact on South Mountain, one of the Community's most significant and important TCPs that figures prominently in oral traditions of the Community. Traditional cultural properties are defined as historic sites that are important because of "their association with cultural practices or beliefs of a living community that (a) are rooted in the community's history, and (b) are important in maintaining the continuing cultural identity of the community" (National Register Bulletin 38). In addition, as identified in the DEIS, the cultural significance of South Mountain causes it to be protected under Section 106 of the National Historic Preservation Act.

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5	Cultural Resources	Since the beginning of the environmental impact statement process, the Federal Highway Administration and Arizona Department of Transportation have been carrying out cultural resources studies and engaging in an ongoing, open dialogue with the Gila River Indian Community Tribal Historic Preservation Office regarding the identification and evaluation of places of religious and cultural importance to the tribe that may be adversely affected by the proposed freeway. Such places are referred to as traditional cultural properties. As a result of these discussions and of studies conducted by the Gila River Indian Community's Cultural Resource Management Program, the Gila River Indian Community has identified traditional cultural properties that are eligible for listing in the National Register of Historic Places. In certain cases, listing these properties on the National Register of Historic Places may offer them protection under Section 4(f) of the Department of Transportation Act. The traditional cultural properties identified are culturally important to other Native American tribes as well. For more discussion of traditional cultural properties, see the section, <i>Cultural Resources</i>, beginning on page 4-140 of the Final Environmental Impact Statement and pages 5-26 through 5-28. Section 106 of the National Historic Preservation Act requires a government-to-government relationship between the Federal Government and Indian tribes as described beginning on page 4-140 of the Final Environmental Impact Statement. Section 106 requires that federal agencies take into account the effects of their undertakings on historic properties. This process requires consultation with tribal authorities. Consultation has occurred with Gila River Indian Community government officials, the Tribal Historic Preservation Officer, the Cultural Resource Management Program, many different tribal authorities, and the State Historic Preservation Office. The consultation has resulted in concurrence from the Gila River Indian Community Tribal Historic Preservation Office and the State Historic Preservation Office on National Register of Historic Places eligibility recommendations (including traditional cultural properties), project effects, and proposed mitigation and measures to minimize harm. This consultation has been ongoing and will continue until any commitments in a record of decision are completed. If feasible, avoidance of historic properties is always the Federal Highway Administration and Arizona Department of Transportation's first option. As summarized in Figure 5-2 on page 5-4 of the Final Environmental Impact Statement, numerous alignment adjustments were made to avoid use of existing and planned Section 4(f) resources such as the South Mountains Traditional Cultural Property. Additional information on the South Mountains Traditional Cultural Property (Muhadagi Doag) is provided in the Section 106 consultation letters in Appendix 2-1. This information was included in the confidential traditional cultural property technical report prepared for the study that was not made available to the public. As discussed on page 5-18 of the Final Environmental Impact Statement, many alternatives were examined to avoid the use of the South Mountains Traditional Cultural Property; however, only the E1 Alternative was deemed to be prudent and feasible by the Federal Highway Administration. The U.S. Department of the Interior reviewed the Draft Environmental Impact Statement and commented, "Following our review of the Section 4(f) Evaluation, we concur that there is no feasible or prudent alternative to the Preferred Alternative selected in the document, and that all measures have been taken to minimize harm to these resources. Please note, however, that this concurrence is contingent upon successful completion of the Programmatic Agreement among the consulting parties." (See page B4 in Appendix 7, Volume III, of the Final Environmental Impact Statement.)

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5	<i>GRIC's Comments on the South Mountain 202 Freeway DEIS</i> Page 2 of 9 South Mountain (also known as <i>Muhadagi Doag</i>, South Mountain's traditional name from the story of creation) stands prominently within the landscape of the Community's Reservation, and is central to the Community's traditional and spiritual respect for the natural resources and vast ecosystem. Community culture recognizes this unique relationship, which enabled the Community's ancestors to live harmoniously within this desert environment from time immemorial and is essential to the continued survival of the Community's culture. Community elders have re-affirmed valuable cultural information regarding tribal member's use of the South Mountain area through oral tradition, which continuously reiterates and renews the tribe's ties with the land through stories and songs. <i>Muhadagi Doag</i> has been well documented by several researchers in published literature as a traditional cultural property of central importance to the <i>Akimel O'Odham</i> and <i>Pee Posh</i> of the Gila River Indian Community. South Mountain has also been documented as a traditional cultural property known as <i>Avikwax'os</i>, which is documented in published literature, as well (Harrington 1908:33; Rea 1996; Spier 1933:252-253). <i>Muhadagi Doag</i> is one of the mountain homes of <i>Se'ehe</i>, also known as <i>I'toi</i>, an ancient deity of the <i>O'Odham</i>. Due to the sacred nature of the area, private traditional religious activities are still conducted in various forms by individual Community members today. The Community's actions to protect South Mountain demonstrate the great importance of this TCP to the Community. As stated in the DEIS: "Throughout the course of preparing the DEIS, the Community has continually expressed to ADOT its concerns about the roadway going through the South Mountains and the possible irreversible impacts on the South Mountains from the proposed action." DEIS, at 4-129. In April 2007, the Community's Council, which is the governing body of the Community, passed a resolution that "recognized that the South Mountain Range in its entirety is a sacred place/traditional cultural property [that] must be kept inviolate" and "strongly opposed any alteration of the South Mountain Range for any purpose [because such alteration] would be a violation of the cultural and religious beliefs of the Gila River Indian Community and would have a negative cumulative effect on the continuing lifeways of the people of the Gila River Indian Community." Further, in February 2012, the Community voted, via a referendum, in favor of the No Build option for the Project due, in part, to its cultural impacts. In addition to the impacts to South Mountain generally, Alternative E-1 would also affect sites that contribute to the South Mountain's historic and cultural significance. The Community's Tribal Historic Preservation Officer (GRIC-THPO) identified specific contributing components of the South Mountains TCP that the Project would impact. These include sites AZ T:12:197 (ASM) and AZ T:12:198 (ASM), both of which continue to function in the traditions of the <i>Akimel O'odham</i> and <i>Pee Posh</i> communities and serve as spiritual places. GRIC-THPO also noted that, while tribes consider all prehistoric sites to be sacred, these sites, known today as Villa Buena and Pueblo del Alamo, were TCPs with elevated importance. Both sites were important prehistoric Hohokam villages that play a role in the Community's culture, identity, history, and oral traditions. For these reasons, ADOT has found that these sites are eligible for listing on the National Register of Historic Places, and would be affected by the Project. Although some modern impacts have occurred since the establishment of the City of Phoenix, the South Mountain range continues to hold its religious and cultural significance. Each of the
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5 (cont.)		The physical impact on land designated as part of the South Mountains has been minimized through design, and much has already been done to mitigate that effect. Access to the mountain would be maintained and multiple other mitigation measures would be implemented due in part to suggestions made by the Gila River Indian Community itself. The proposed mitigation for the South Mountains Traditional Cultural Property is discussed in the Final Environmental Impact Statement on page 4-134, and measures to minimize harm to the South Mountains Traditional Cultural Property are discussed on page 5-27 of the Final Environmental Impact Statement.
6	Tribal Involvement	The Gila River Indian Community coordinated referendum and its results are described on page 2-8 of the Final Environmental Impact Statement. Section 106 of the National Historic Preservation Act requires a government-to-government relationship between the Federal Government and Indian tribes as described beginning on page 4-140 of the Final Environmental Impact Statement. Section 106 requires that federal agencies take into account the effects of their undertakings on historic properties. This process requires consultation with tribal authorities. Consultation has occurred with Gila River Indian Community government officials, the Tribal Historic Preservation Officer, the Cultural Resource Management Program, many different tribal authorities, and the State Historic Preservation Office. The consultation has resulted in concurrence from the Gila River Indian Community Tribal Historic Preservation Office and the State Historic Preservation Office on National Register of Historic Places eligibility recommendations (including traditional cultural properties), project effects, and proposed mitigation and measures to minimize harm. This consultation has been ongoing and will continue until any commitments in a record of decision are completed. The Final Environmental Impact Statement, after consultation and coordination efforts, accommodates and preserves (to the fullest extent possible from the available alternatives) access to the South Mountains for religious practices. A very small portion of the mountain would be impacted by the proposed freeway (less than 0.03 percent of the total area). Although the Final Environmental Impact Statement describes the impact on the South Mountains as adverse, Native Americans would not be kept from practicing their beliefs, access to the mountain would be maintained, and mitigation measures would be implemented based on input from members of the Community. As discussed on page 4-186 of the Final Environmental Impact Statement, the proposed action may contribute to cumulative cultural resources impacts. However, the proposed action and other major planned transportation projects would potentially create preservation in place (enhancement) opportunities not typically associated with private-sector development projects. The opportunity to preserve in place would be the result of federal and State regulations promoting preservation of such resources when associated with a publicly funded project; these federal and State regulations generally are not applied to privately funded projects. Although the types of impacts would be typical of those experienced in constructing and operating other parts of the region's freeway system, some of these impacts would be effectively mitigated through the implementation of enhancement and management plans and other strategies.

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	<i>GRIC's Comments on the South Mountain 202 Freeway DEIS</i> Page 2 of 9 South Mountain (also known as <i>Muhadagi Doag</i>, South Mountain's traditional name from the story of creation) stands prominently within the landscape of the Community's Reservation, and is central to the Community's traditional and spiritual respect for the natural resources and vast ecosystem. Community culture recognizes this unique relationship, which enabled the Community's ancestors to live harmoniously within this desert environment from time immemorial and is essential to the continued survival of the Community's culture. Community elders have re-affirmed valuable cultural information regarding tribal member's use of the South Mountain area through oral tradition, which continuously reiterates and renews the tribe's ties with the land through stories and songs. <i>Muhadagi Doag</i> has been well documented by several researchers in published literature as a traditional cultural property of central importance to the <i>Akimel O'Odham</i> and <i>Pee Posh</i> of the Gila River Indian Community. South Mountain has also been documented as a traditional cultural property known as <i>Avikwax'os</i>, which is documented in published literature, as well (Harrington 1908:33; Rea 1996; Spier 1933:252-253). <i>Muhadagi Doag</i> is one of the mountain homes of <i>Se'ehe</i>, also known as <i>I'toi</i>, an ancient deity of the <i>O'Odham</i>. Due to the sacred nature of the area, private traditional religious activities are still conducted in various forms by individual Community members today. The Community's actions to protect South Mountain demonstrate the great importance of this TCP to the Community. As stated in the DEIS: "Throughout the course of preparing the DEIS, the Community has continually expressed to ADOT its concerns about the roadway going through the South Mountains and the possible irreversible impacts on the South Mountains from the proposed action." DEIS, at 4-129. In April 2007, the Community's Council, which is the governing body of the Community, passed a resolution that "recognized that the South Mountain Range in its entirety is a sacred place/traditional cultural property [that] must be kept inviolate" and "strongly opposed any alteration of the South Mountain Range for any purpose [because such alteration] would be a violation of the cultural and religious beliefs of the Gila River Indian Community and would have a negative cumulative effect on the continuing lifeways of the people of the Gila River Indian Community." Further, in February 2012, the Community voted, via a referendum, in favor of the No Build option for the Project due, in part, to its cultural impacts. 7 In addition to the impacts to South Mountain generally, Alternative E-1 would also affect sites that contribute to the South Mountain's historic and cultural significance. The Community's Tribal Historic Preservation Officer (GRIC-THPO) identified specific contributing components of the South Mountains TCP that the Project would impact. These include sites AZ T:12:197 (ASM) and AZ T:12:198 (ASM), both of which continue to function in the traditions of the <i>Akimel O'odham</i> and <i>Pee Posh</i> communities and serve as spiritual places. GRIC-THPO also noted that, while tribes consider all prehistoric sites to be sacred, these sites, known today as Villa Buena and Pueblo del Alamo, were TCPs with elevated importance. Both sites were important prehistoric Hohokam villages that play a role in the Community's culture, identity, history, and oral traditions. For these reasons, ADOT has found that these sites are eligible for listing on the National Register of Historic Places, and would be affected by the Project. Although some modern impacts have occurred since the establishment of the City of Phoenix, the South Mountain range continues to hold its religious and cultural significance. Each of the

Code	Issue	Response
7	Cultural Resources	The Federal Highway Administration and Arizona Department of Transportation have listened closely to members of the Gila River Indian Community and their concerns. A summary of this information is provided in the Final Environmental Impact Statement on page 4-141. As acknowledged in the comment, the identification of the two prehistoric villages, Villa Buena [AZ T:12:9 (ASM)] and Pueblo del Alamo [AZ T:12:52 (ASM)], and the South Mountains Traditional Cultural Property and contributing components, the assessment of the importance of these properties to the Gila River Indian Community, and the assessment of impacts on these properties included consultation with staff from the Gila River Indian Community's Tribal Historic Preservation Office and Cultural Resource Management Program and resulted in the concurrence of the Gila River Indian Community at each of these steps (see Table 4-47 beginning on page 4-145 of the Final Environmental Impact Statement). Adverse effects on Villa Buena and Pueblo del Alamo, two traditional cultural properties in the western portion of the Study Area, would be prevented through implementation of an enhancement and management plan developed in consultation with the Gila River Indian Community's Tribal Historic Preservation Officer and Cultural Resource Management Program (see 4-143 of the Final Environmental Impact Statement). Although Villa Buena and Pueblo del Alamo would be adversely affected as archaeological sites, the National Register of Historic Properties-eligible traditional cultural property attributes of Villa Buena and Pueblo del Alamo would not be adversely affected. Impacts on prehistoric sites, including trails and shrines, are documented beginning on page 4-142 of the Final Environmental Impact Statement, while impacts on the South Mountains Traditional Cultural Property are documented on page 4-143. As acknowledged in the comment, the Draft Environmental Impact Statement noted on page 5-28 that the proposed action might be perceived as severing the Gila River Indian Community's spiritual connection to the mountains. The Arizona Department of Transportation and Federal Highway Administration have respected the Gila River Indian Community's spiritual connection with these cultural resources throughout the environmental impact statement process, as evidenced by consultation efforts, mitigation measures, and a discussion of cultural resources issues in the Final Environmental Impact Statement. Members of the Gila River Indian Community would not be prohibited from continuing to practice their beliefs should the project go forward because access to the mountain would be maintained, impacts would be mitigated based on input by the Gila River Indian Community and others, and only a small fraction of the mountains would be affected. The comment's reference to "isolate the Community" on page S-27 of the Draft Environmental Impact Statement is taken out of context. On page S-27 the "isolation of the Gila River Indian Community from culturally important places" is identified as an "impact to be mitigated." The potential isolation would be mitigated by providing access through proposed crossings under the freeway. These multifunctional crossings are proposed near the cultural resources sites and would facilitate pedestrian access to these sites. So, the E1 Alternative would not isolate the Gila River Indian Community from culturally important places.

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8	<i>GRIC's Comments on the South Mountain 202 Freeway DEIS</i> Page 3 of 9 Project's build alternatives will be intrusive to the spiritual connections associated with the people of the Community and it will forever alter the landscape and view-shed of South Mountain as they are experienced by the people of the Community. Trails and shrines located within the proposed corridor will be destroyed, further diminishing the Community's traditional way of life. Archeological sites will also be impacted. In addition, as the DEIS notes, Alternative E-1 will isolate the Community from these culturally important places. (See DEIS at S-27). The first step in addressing adverse impacts to protected resources under the Section 106 process is avoidance. Nothing short of avoidance would sufficiently mitigate the impacts that Alternative E-1 would have on the South Mountain Range. As part of the Section 106 consultation process, in 2010, the Community's Lieutenant Governor proposed mitigation efforts for the adverse impacts to South Mountain, which FHWA subsequently accepted. This should not be viewed as either an express or implied concurrence with Alternative E-1 under NEPA or with ADOT's/FHWA's determination under Section 4(f) that there are no practicable or feasible alternatives that avoid impacts to South Mountain. Since the time of the Lieutenant Governor's letter, the Community voted via referendum in favor of the No Action Alternative. Thus, this remains the primary position of the Community. II. <u>THE DEIS SHOULD STUDY IN DETAIL AN ALTERNATIVE THAT AVOIDS SOUTH MOUNTAIN.</u> Section 1505.1(e) of NEPA's implementing regulations requires agencies to rigorously explore and objectively evaluate a reasonable range of alternatives for a proposed action. While there is no set number of alternatives that must be evaluated in an EIS (see NEPA 40 Questions, Question 1b), "what constitutes a reasonable range of alternatives depends on the nature of the proposal and the facts in each case." <i>Id.</i> In the case of this Project, where there will be very significant adverse effects on South Mountain – a resource of great cultural and religious significance to the Community – the range of alternatives that are evaluated in detail in the DEIS should include one or more South Mountain avoidance alternatives. The Community recognizes that in certain cases, alternatives can be eliminated from detailed study, or screened out and disposed of with only a brief discussion in the EIS. The Project that is the subject of this DEIS, however, is not such a case. ADOT owes it to the Community – and NEPA demands in these circumstances – that the DEIS analyze, in detail, at least one alternative in the Eastern Section of the Project that avoids bisecting South Mountain. Instead of including the required rigorous and objective study of a South Mountain avoidance alternative, however, the DEIS summarily rejected all but one alternative in the Eastern Section of the Project. The alternative that was carried forward for detailed study in the DEIS, E-1, is the alternative with the most significant environmental impacts on the Community and South Mountain. All but two of the Eastern Section alternatives cut directly through the South Mountain Range. The two alternatives that are located north of South Mountain, the US 60 Extension and the I-10 Spur, were summarily rejected with an explanation consisting of just a few bullet points. While the DEIS did include a section labeled "South Mountain Avoidance Options," this consisted only of the design options of building a bridge over the South Mountains

Code	Issue	Response
8	Cultural Resources	Section 106 requires federal agencies to consider the effects of their actions on historic properties (such as the South Mountains Traditional Cultural Property) and provide the Advisory Council on Historic Preservation an opportunity to comment on federal projects prior to implementation. As outlined in Title 36 of the Code of Federal Regulations, Part 800, "Protecting Historic Properties," the National Historic Preservation Act Section 106 review process encourages, but does not mandate, protection or preservation. Sometimes there is no way for a needed project to proceed without harming historic properties (such as the South Mountains Traditional Cultural Property). As described in the Final Environmental Impact Statement in Chapters 2, 3, and 5, the examination of possible avoidance alternatives was comprehensive. Section 106 review does, however, ensure that preservation values are factored into federal agency planning and decisions. Because of Section 106, federal agencies must assume responsibility for the consequences of their actions on historic properties and be publicly accountable for their decisions. The Final Environmental Impact Statement fully discloses those consequences in Chapter 4, <i>Affected Environment, Environmental Consequences</i>, and <i>Mitigation</i>, and in Chapter 5, <i>Section 4(f) Evaluation</i>. If feasible, avoidance of historic properties is always the Federal Highway Administration and Arizona Department of Transportation's first option. As summarized in Figure 5-2 on page 5-4 of the Final Environmental Impact Statement, numerous alignment adjustments were made to avoid use of existing and planned Section 4(f) resources such as the South Mountains Traditional Cultural Property. As discussed on page 5-18 of the Final Environmental Impact Statement, many alternatives were examined to avoid the use of the South Mountains Traditional Cultural Property; however, none of these alternatives were deemed to be prudent and feasible by the Federal Highway Administration. The Department of the Interior reviewed the Draft Environmental Impact Statement and commented, "Following our review of the Section 4(f) Evaluation, we concur that there is no feasible or prudent alternative to the Preferred Alternative selected in the document, and that all measures have been taken to minimize harm to these resources. Please note, however, that this concurrence is contingent upon successful completion of the Programmatic Agreement among the consulting parties." (See page B4 in Appendix 7, Volume III, of the Final Environmental Impact Statement.) The physical impact on land designated as part of the South Mountains has been minimized through design and much has already been done to mitigate that effect. Access to the mountain would be maintained and multiple other mitigation measures would be implemented due in part to suggestions made by the Gila River Indian Community itself. For example, the Federal Highway Administration and Arizona Department of Transportation made a commitment to provide funds for the Gila River Indian Community to conduct a full evaluation of the South Mountains Traditional Cultural Property (see pages 4-147 and 4-158 of the Draft and Final Environmental Impact Statements, respectively). Documentation of these efforts is in a letter from the Lieutenant Governor of the Gila River Indian Community to the Administrator of the Arizona Division of the Federal Highway Administration, dated June 23, 2010 (see page A348 of Appendix 2-1 of the Final Environmental Impact Statement). In this letter, the Gila River Indian Community submitted a proposal for the "Evaluation of Traditional Cultural Property and Adverse Effects of Transportation Corridor Development posed by the proposed construction of the current Pecos Alignment of the South Mountain Freeway." The proposed mitigation for the South Mountains Traditional Cultural Property is discussed in the Final Environmental Impact Statement on page 4-143, and measures to minimize harm to the South Mountains Traditional Cultural Property are discussed on page 5-27 of the Final Environmental Impact Statement.

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	<i>GRIC's Comments on the South Mountain 202 Freeway DEIS</i> <i>Page 3 of 9</i> Project's build alternatives will be intrusive to the spiritual connections associated with the people of the Community and it will forever alter the landscape and view-shed of South Mountain as they are experienced by the people of the Community. Trails and shrines located within the proposed corridor will be destroyed, further diminishing the Community's traditional way of life. Archeological sites will also be impacted. In addition, as the DEIS notes, Alternative E-1 will isolate the Community from these culturally important places. (See DEIS at S-27). The first step in addressing adverse impacts to protected resources under the Section 106 process is avoidance. Nothing short of avoidance would sufficiently mitigate the impacts that Alternative E-1 would have on the South Mountain Range. As part of the Section 106 consultation process, in 2010, the Community's Lieutenant Governor proposed mitigation efforts for the adverse impacts to South Mountain, which FHWA subsequently accepted. This should not be viewed as either an express or implied concurrence with Alternative E-1 under NEPA or with ADOT's/FHWA's determination under Section 4(f) that there are no practicable or feasible alternatives that avoid impacts to South Mountain. Since the time of the Lieutenant Governor's letter, the Community voted via referendum in favor of the No Action Alternative. Thus, this remains the primary position of the Community. II. THE DEIS SHOULD STUDY IN DETAIL AN ALTERNATIVE THAT AVOIDS SOUTH MOUNTAIN. Section 1505.1(e) of NEPA's implementing regulations requires agencies to rigorously explore and objectively evaluate a reasonable range of alternatives for a proposed action. While there is no set number of alternatives that must be evaluated in an EIS (see NEPA 40 Questions, Question 1b), "what constitutes a reasonable range of alternatives depends on the nature of the proposal and the facts in each case." <i>Id.</i> In the case of this Project, where there will be very significant adverse effects on South Mountain – a resource of great cultural and religious significance to the Community – the range of alternatives that are evaluated in detail in the DEIS should include one or more South Mountain avoidance alternatives. The Community recognizes that in certain cases, alternatives can be eliminated from detailed study, or screened out and disposed of with only a brief discussion in the EIS. The Project that is the subject of this DEIS, however, is not such a case. ADOT owes it to the Community – and NEPA demands in these circumstances – that the DEIS analyze, in detail, at least one alternative in the Eastern Section of the Project that avoids bisecting South Mountain. Instead of including the required rigorous and objective study of a South Mountain avoidance alternative, however, the DEIS summarily rejected all but one alternative in the Eastern Section of the Project. The alternative that was carried forward for detailed study in the DEIS, E-1, is the alternative with the most significant environmental impacts on the Community and South Mountain. All but two of the Eastern Section alternatives cut directly through the South Mountain Range. The two alternatives that are located north of South Mountain, the US 60 Extension and the I-10 Spur, were summarily rejected with an explanation consisting of just a few bullet points. While the DEIS did include a section labeled "South Mountain Avoidance Options," this consisted only of the design options of building a bridge over the South Mountains

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9	Alternatives	Several action alternatives were subject to the alternatives development and screening process; not just the E1 Alternative and alternatives located on the Community (Figure 3-6 on page 3-10 of the Final Environmental Impact Statement illustrates a representation of such alternatives). Ultimately, the other alternatives (besides the E1 Alternative) were eliminated from further study in the screening process and the Gila River Indian Community decided not to give permission to develop alternatives on its land (see Final Environmental Impact Statement page 3-25). The E1 Alternative when combined with the W59, W71, and W101 (and its options) Alternatives in the western section represents three distinct action alternatives from project termini to project termini, and therefore, represents a full range of reasonable alternatives for detailed study in the Draft and Final Environmental Impact Statements. Therefore, the Arizona Department of Transportation, with concurrence from the Federal Highway Administration, identified the E1 Alternative as the eastern section of the Preferred Alternative (which includes the W59 Alternative in the western section of the Study Area). In reaching its determination, the Arizona Department of Transportation sought to balance its responsibilities to address regional mobility needs while being fiscally responsible and sensitive to local communities. In addition, throughout the study process, the No-Action Alternative was studied in detail. The No-Action Alternative would avoid the types of impacts the action alternatives would cause on the South Mountains. If feasible, avoidance of historic properties is always the Federal Highway Administration and Arizona Department of Transportation's first option. As summarized in Figure 5-2 on page 5-4 of the Final Environmental Impact Statement, numerous alignment adjustments were made to avoid use of existing and planned Section 4(f) resources. As discussed on page 5-18 of the Final Environmental Impact Statement, many alternatives were examined to avoid the use of the South Mountains Traditional Cultural Property; however, none of these alternatives were deemed to be prudent and feasible by the Federal Highway Administration. The Department of the Interior reviewed the Draft Environmental Impact Statement and commented, "Following our review of the Section 4(f) Evaluation, we concur that there is no feasible or prudent alternative to the Preferred Alternative selected in the document, and that all measures have been taken to minimize harm to these resources. Please note, however, that this concurrence is contingent upon successful completion of the Programmatic Agreement among the consulting parties." (See page B4 of Appendix 7, Volume III, of the Final Environmental Impact Statement.) The physical impact on land designated as part of the South Mountains has been minimized through design, and much has already been done to mitigate that effect. Access to the mountain would be maintained, and multiple other mitigation measures would be implemented due in part to suggestions made by the Gila River Indian Community itself. For example, the Federal Highway Administration and Arizona Department of Transportation made a commitment to provide funds for the Gila River Indian Community to conduct a full evaluation of the South Mountains Traditional Cultural Property (see page 4-159 of the Final Environmental Impact Statement). Documentation of these efforts is in a letter from the Lieutenant Governor of the Gila River Indian Community to the Administrator of the Arizona Division of the Federal Highway Administration, dated June 23, 2010 (see page A348 of Appendix 2-1 of the Final Environmental Impact Statement). In this letter, the Gila River Indian Community submitted a proposal for the "Evaluation of Traditional Cultural

(Response 9 continues on next page)

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	<i>GRIC's Comments on the South Mountain 202 Freeway DEIS</i> Page 3 of 9 Project's build alternatives will be intrusive to the spiritual connections associated with the people of the Community and it will forever alter the landscape and view-shed of South Mountain as they are experienced by the people of the Community. Trails and shrines located within the proposed corridor will be destroyed, further diminishing the Community's traditional way of life. Archeological sites will also be impacted. In addition, as the DEIS notes, Alternative E-1 will isolate the Community from these culturally important places. (See DEIS at S-27). The first step in addressing adverse impacts to protected resources under the Section 106 process is avoidance. Nothing short of avoidance would sufficiently mitigate the impacts that Alternative E-1 would have on the South Mountain Range. As part of the Section 106 consultation process, in 2010, the Community's Lieutenant Governor proposed mitigation efforts for the adverse impacts to South Mountain, which FHWA subsequently accepted. This should not be viewed as either an express or implied concurrence with Alternative E-1 under NEPA or with ADOT's/FHWA's determination under Section 4(f) that there are no practicable or feasible alternatives that avoid impacts to South Mountain. Since the time of the Lieutenant Governor's letter, the Community voted via referendum in favor of the No Action Alternative. Thus, this remains the primary position of the Community. II. <u>THE DEIS SHOULD STUDY IN DETAIL AN ALTERNATIVE THAT AVOIDS SOUTH MOUNTAIN.</u> Section 1505.1(e) of NEPA's implementing regulations requires agencies to rigorously explore and objectively evaluate a reasonable range of alternatives for a proposed action. While there is no set number of alternatives that must be evaluated in an EIS (see NEPA 40 Questions, Question 1b), "what constitutes a reasonable range of alternatives depends on the nature of the proposal and the facts in each case." <i>Id.</i> In the case of this Project, where there will be very significant adverse effects on South Mountain – a resource of great cultural and religious significance to the Community – the range of alternatives that are evaluated in detail in the DEIS should include one or more South Mountain avoidance alternatives. 9 The Community recognizes that in certain cases, alternatives can be eliminated from detailed study, or screened out and disposed of with only a brief discussion in the EIS. The Project that is the subject of this DEIS, however, is not such a case. ADOT owes it to the Community – and NEPA demands in these circumstances – that the DEIS analyze, in detail, at least one alternative in the Eastern Section of the Project that avoids bisecting South Mountain. Instead of including the required rigorous and objective study of a South Mountain avoidance alternative, however, the DEIS summarily rejected all but one alternative in the Eastern Section of the Project. The alternative that was carried forward for detailed study in the DEIS, E-1, is the alternative with the most significant environmental impacts on the Community and South Mountain. All but two of the Eastern Section alternatives cut directly through the South Mountain Range. The two alternatives that are located north of South Mountain, the US 60 Extension and the I-10 Spur, were summarily rejected with an explanation consisting of just a few bullet points. While the DEIS did include a section labeled "South Mountain Avoidance Options," this consisted only of the design options of building a bridge over the South Mountains

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9 (cont.)		<i>Property and Adverse Effects of Transportation Corridor Development</i> posed by the proposed construction of the current Pecos Alignment of the South Mountain Freeway."The proposed mitigation for the South Mountains Traditional Cultural Property is discussed in the Final Environmental Impact Statement on page 4-143, and measures to minimize harm to the South Mountains Traditional Cultural Property are discussed on page 5-27 of the Final Environmental Impact Statement. Chapter 1, <i>Purpose and Need</i>, of the Final Environmental Impact Statement examines the purpose and need for the proposed action in terms of defining a transportation problem. In doing so, assumptions associated with the past need for the freeway were discounted as part of the environmental impact statement process. The results of the purpose and need analyses included the determination that a transportation problem (similar to the type of problem that has been represented in past Regional Transportation Plans) still exists in the area and that this problem is similar to transportation problem that existed in prior years. The alternatives analyses considered numerous modal alternatives, and it was concluded through the screening process that a road facility would be the appropriate modal choice to address the transportation problem defined. The analyses in the Draft Environmental Impact Statement used socioeconomic and traffic projections at the regional analysis zone and traffic analysis zone levels. At the time of publication of the Draft Environmental Impact Statement, Census 2010-based socioeconomic data at the regional analysis zone and traffic analysis zone levels had not been adopted by the Maricopa Association of Governments and were not available to the project team. Therefore, the data used in the Draft Environmental Impact Statement were the most appropriate information available. The Maricopa Association of Governments approved new population, employment, housing, and traffic projections in June 2013. The new data are presented in the Final Environmental Impact Statement beginning on page 1-11. While new projections based on the 2010 Census showed lower anticipated population and vehicle miles traveled in 2035 than the previous projections, the need for the freeway has not changed. The traffic analysis demonstrated that the proposed project is needed today and will continue to be needed into the future. Although the comment indicates that the discussion in the Draft Environmental Impact Statement is too brief, the document is a summary of a series of technical reports that provide sufficient information to convey the process of screening and reasons for elimination consistent with Federal Highway Administration for National Environmental Policy Act implementation. Technical reports are also available for public examination upon request. The alternative development and screening process as described in Chapter 3 was comprehensive in its nature. While alternatives eliminated are summarized in the chapter, the analyses as documented in the supporting project files and Appendices were appropriate and comprehensive. The complete list of avoidance alternatives for the Section 4(f) resources associated with the South Mountains includes the No-Action Alternative, Gila River Indian Community Alternatives, U.S. Route 60 Extension Alternative, Interstate 10 Spur Alternative (and Options), Riggs Road Alternative, and State Route 85/Interstate 8 Alternative in addition to the Bridge and Tunnel Alternatives. Descriptions of these can be found in the context of the alternatives development and screening process beginning on page 3-9 of the Final Environmental Impact Statement and in the context of avoidance alternatives for the Section 4(f) resources associated with the South Mountains beginning on page 5-16 of the Final Environmental Impact Statement).

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	<i>GRIC's Comments on the South Mountain 202 Freeway DEIS</i> <i>Page 4 of 9</i> or building a tunnel under the South Mountains, both of which the DEIS rejected. See DEIS at 3-13 – 3-14. ADOT attempts to justify its decision to not study in detail an alternative located north of South Mountain by claiming that such alternatives “would not meet the purpose and need of the proposed action and/or would create impacts of extraordinary magnitude.” (DEIS at S-39-40). Bisecting and limiting access to one of its most important TCPs is an “impact of extraordinary magnitude,” and thus ADOT must at least study an avoidance alternative in detail in the EIS. In addition to the obligation under NEPA to look at avoidance alternatives, Section 4(f) of the Department of Transportation Act also requires the analysis of avoidance alternatives. Pursuant to Section 4(f), before approving a project that “uses” a Section 4(f) resource, FHWA must find that there is no prudent and feasible alternative to that use, and that the selected alternative minimizes harm to the resource. If there is a prudent and feasible alternative that completely avoids 4(f) resources, then it must be selected. As the DEIS concedes, South Mountain is a Section 4(f) resource, and locating a highway through South Mountain constitutes a “use” of South Mountain. The rejection of an avoidance alternative, without sufficient detailed study, does not demonstrate that there is no “prudent and feasible alternative” to the use of South Mountain. Indeed, a glaring omission that ADOT should have studied is an alternative that followed one of the Western Section alternatives south from I-10, and then traveled east to I-10 south of Phoenix, somewhere between the US 60 Extension and the I-10 Spur alternatives and north of the South Mountains. Figure 3-5 of the DEIS appears to show such an alternative, but, again, this alternative was not evaluated in the DEIS and there is no explanation in the DEIS as to why that particular alternative was not carried forward. The DEIS does not indicate that this South Mountain avoidance alternative fails to meet the Project’s purpose and need, has adverse environmental impacts, is cost prohibitive or is otherwise not feasible. As such, this is a prime example of an alternative that would have avoided South Mountain and should have been studied. III. THE DEIS FAILS TO ADEQUATELY ASSESS ENVIRONMENTAL IMPACTS ON THE COMMUNITY’S RESERVATION The DEIS also fails to adequately assess impacts from the Project that would occur on the Community’s Reservation. While the proposed roadway is located outside of the Reservation boundaries, NEPA requires that ADOT identify and study on-Reservation direct impacts, indirect impacts and cumulative impacts. The most significant omissions include the failure of ADOT to identify and analyze impacts to or impacts associated with air quality, water quality, biological resources and hazardous materials. 1. <u>Air Quality</u> The Project is being proposed for construction just north of Community lands and south of South Mountain. Since the freeway will be built on the south side of the South Mountain Range, air pollution emissions from vehicle traffic are expected to be trapped on the south side of the mountain and directly impact air quality at GRIC. This is especially true during periods of

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10	Alternatives	Based on the comment received, the proposed alternative is considered in the alternative screening process presented in the Final Environmental Impact Statement (see text beginning on page 3-7). The proposed alternative, named the US 60 Extension to Interstate 10 (Papago Freeway) in the Final Environmental Impact Statement, would result in similar benefits and impacts as the U.S. Route 60 Extension and Interstate 10 Spur, which were presented in the Draft Environmental Impact Statement. The project team subjected the proposed alternative to the screening process and criteria applied to other alternatives as described in beginning on page 3-3 of the Final Environmental Impact Statement. The project team found the alternative presented in the comment would cause substantial traffic performance impacts on Interstate 10 (Maricopa Freeway) and U.S. State Route 60 (Superstition Freeway), would not address the needs based on regional travel demand and existing and projected transportation system deficiencies (which were updated with Census 2010-based socioeconomic data presented in the Final Environmental Impact Statement beginning on page 1-11), would result in thousands of residential displacements and over one hundred business displacements, would adversely affect the communities in the South Mountain Village by constructing a barrier between schools, parks, and residences, and would not be consistent with local or regional planning. For these reasons, the alternative was eliminated from detailed study (see Table 3-5 on page 3-12 of the Final Environmental Impact Statement).
11	Alternatives	As noted in the sidebar on page 4-3 of the Final Environmental Impact Statement, impacts on the Gila River Indian Community from the proposed action as presented in the Final Environmental Impact Statement are based on data available to the general public and on field observation as appropriate. Discussions in the Final Environmental Impact Statement are limited to only those areas where impacts would occur. This condition was agreed upon by the Gila River Indian Community and is a response to the level of information made available to the project team by the Gila River Indian Community (see page 2-10 of the Final Environmental Impact Statement).
12	Air Quality	The Draft and Final Environmental Impact Statements present information and analyses about the proposed action and the enhanced conditions when compared against the No-Action Alternative and document that the proposed action would not cause substantial adverse air quality effects. The Draft and Final Environmental Impact Statements account for potential effects when considering both adverse and beneficial impacts. The Draft and Final Environmental Impact Statements provide in-depth discussion of potential air quality impacts of the proposed alternatives. The carbon monoxide analysis presented on page 4-65 of the Draft Environmental Impact Statement and updated on page 4-75 of the Final Environmental Impact Statement represents projected carbon monoxide concentrations along the project corridor, including those proposed interchange locations along the South Mountain Freeway corridor. The Arizona Department of Transportation also conducted a quantitative particulate matter (PM₁₀) hot-spot analysis that is discussed on page 4-76 of the Final Environmental Impact Statement. The carbon monoxide and particulate matter (PM₁₀) analyses demonstrated that the proposed freeway would not contribute to any new localized violations, increase the frequency or severity of any existing violation, or delay timely attainment of the National Ambient Air Quality Standards or any required interim emissions reductions or other milestones. The Draft Environmental Impact Statement provided the results of modeling for each of the seven priority mobile source air toxics, in both the Eastern and Western Subareas, and compared relative mobile source air toxics emissions that would result

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13	<i>GRIC's Comments on the South Mountain 202 Freeway DEIS</i> Page 5 of 9 inversion and stagnant air conditions. The DEIS indicates that the Project will improve air quality in the Phoenix Metro area, but the DEIS does not address the adverse impacts on air quality within the Community. The DEIS should be revised to specifically evaluate the adverse impacts on air quality on the GRIC Reservation. During early public meetings with ADOT and other agencies, GRIC Air Quality Program personnel requested, on multiple occasions, total estimated air pollution emissions from the Project. More specifically, GRIC requested information on estimated Vehicle Miles Travelled (VMT) per day and the total annual tonnages for criteria pollutants and Hazardous Air Pollutants (HAPs) resulting from construction and operation of the freeway. While ADOT indicated that this information would be provided in the EIS, the DEIS does not contain such emission calculations or total tonnages of pollutants. The EIS should be supplemented to include this information. The EIS indicates on page 4-65 that the Mobile 6.2 Modeling Program was run for carbon monoxide (CO), however, as ADOT has indicated, project specific total tonnages for CO and other criteria pollutants are not included in the EIS. Once the Mobile 6.2 Modeling Program is run, total tonnages for criteria pollutants are easily calculated. Total tonnages of air pollution emissions for the entire freeway project should be included in the EIS to provide full disclosure of the adverse impacts that can be expected from the entire project. These totals should also include total tonnages for MSATs (on-road Mobile Source Air Toxics). This is especially important for Diesel Particulate Matter (DPM) due to the fact that it does not break down readily and may accumulate/concentrate on the south side of South Mountain and adversely impact air quality on the GRIC Reservation. The EIS includes modeling of estimated concentrations of air pollutants at arterials on the west side of Phoenix and the east side of the Project in the Chandler area. The EIS does not include modeling, however, of estimated concentrations of air pollutants along the stretch of freeway bordering the GRIC Reservation between I-10 on the east near Chandler and the point where the proposed freeway will cross the point parallel with the western border of the Community. Concentrations of air pollutants should be modeled along this stretch of the Project. The EIS should be revised to include modeling of current concentrations of criteria pollutants and MSATs (background concentrations) and concentrations of criteria pollutants and MSATs after construction of the freeway. This will provide information on what the expected increased concentrations of pollutants will be as a result of the proposed freeway construction. Page 4-65 of the EIS indicates that a PM-10 qualitative analysis was conducted, but a PM-2.5 qualitative analysis was not conducted. This omission is particularly troubling because a large portion of Diesel Particulate Matter (DPM) is PM-2.5. In addition, the EIS states that the analysis for PM-10 was performed for the Project to examine the areas that may be adversely affected by the proposed South Mountain Freeway. Again, however, the analysis omitted impacts to GRIC lands. The analysis only addressed the arterials on the west side of Phoenix. The EIS should be revised to include a qualitative analysis for both PM-10 and PM-2.5 on Community lands. Pages 4-70 thru 4-71 of the EIS indicate that emissions of on-road MSATs will be reduced as a result of the Project. This is somewhat misleading because it assumes reduced vehicle emissions

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12 (cont.)		from three different potential alternatives (W59, W71, W101) as compared with the No-Action Alternative. It also included modeling of mobile source air toxics emissions in the overall mobile source air toxics study area assuming the W59 Alternative (see pages 4-70 to 4-74 of the Draft Environmental Impact Statement) along with implementation of recent U.S. Environmental Protection Agency mobile source air toxics rules. This analysis was also updated beginning on page 4-77 of the Final Environmental Impact Statement. Based on the carbon monoxide, particulate matter (PM₁₀), and mobile source air toxics analyses, the Federal Highway Administration concluded that the project would not cause substantial adverse impacts on air quality. The carbon monoxide and particulate matter (PM₁₀) analyses demonstrated that the proposed freeway would not contribute to any new localized violations, increase the frequency or severity of any existing violation, or delay timely attainment of the National Ambient Air Quality Standards or any required interim emissions reductions or other milestones. For mobile source air toxics, the analysis showed that for the Study Area, constructing the freeway would have a marginal effect on annual emissions in 2025 and 2035 (less than a 1 percent difference in total annual emissions between the Preferred Alternative and No-Action Alternative). With the Preferred Alternative in 2035, modeled mobile source air toxics emissions would decrease by 57 percent to more than 90 percent, depending on the pollutant, despite a 47 percent increase in vehicle miles traveled in the Study Area compared with 2012 conditions. The air quality technical report can be reviewed on the project Web site at <southmountainfreeway.com>. Meteorological information was considered in the air quality analyses [<i>Air Quality Assessment: South Mountain Freeway (SR 202L)</i>, dated March 1, 2013] conducted for the proposed action. Data from the Maricopa County Air Quality Department and from the Gila River Indian Community monitoring station were compared with two, 1-month studies conducted during the winter of 2006 and the spring of 2007 along Pecos Road in the Study Area. According to the Arizona Department of Transportation, 2013, <i>Air Quality Assessment South Mountain Freeway 202L Draft Report</i>, review of wind data from the Gila River Indian Community monitoring site at St. Johns suggests that during the morning hours and associated with mountain-drainage air flows and stable atmospheric conditions, the wind flows from the southeast and follows the Gila River channel to the north. Locations to the east of St. Johns will tend to have a flow from the easterly component as the air flows from the east to the lower elevations along the Gila River. During the warmer hours with improved mixing, the flows typically follow the river channel and come from the north and northwest toward the south and southeast. Although these warmer-hour flows would move pollutants toward the Gila River Indian Community, as noted earlier, the pollutants would be below the National Ambient Air Quality Standards at their highest concentrations and these low levels of pollutants would continue to disperse as they moved toward the Gila River Indian Community.
13	Air Quality	The carbon monoxide analysis presented on page 4-65 of the Draft Environmental Impact Statement and updated on page 4-75 of the Final Environmental Impact Statement represents projected carbon monoxide concentrations along the project corridor, including those proposed interchange locations along the South Mountain Freeway corridor and near the Gila River Indian Community. This also applies to the particulate matter (PM₁₀) hot-spot analysis that is discussed on page 4-76 of the Final Environmental Impact Statement.

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	<i>GRIC's Comments on the South Mountain 202 Freeway DEIS</i> <i>Page 5 of 9</i> inversion and stagnant air conditions. The DEIS indicates that the Project will improve air quality in the Phoenix Metro area, but the DEIS does not address the adverse impacts on air quality within the Community. The DEIS should be revised to specifically evaluate the adverse impacts on air quality on the GRIC Reservation. During early public meetings with ADOT and other agencies, GRIC Air Quality Program personnel requested, on multiple occasions, total estimated air pollution emissions from the Project. More specifically, GRIC requested information on estimated Vehicle Miles Travelled (VMT) per day and the total annual tonnages for criteria pollutants and Hazardous Air Pollutants (HAPs) resulting from construction and operation of the freeway. While ADOT indicated that this information would be provided in the EIS, the DEIS does not contain such emission calculations or total tonnages of pollutants. The EIS should be supplemented to include this information. 14 The EIS indicates on page 4-65 that the Mobile 6.2 Modeling Program was run for carbon monoxide (CO), however, as ADOT has indicated, project specific total tonnages for CO and other criteria pollutants are not included in the EIS. Once the Mobile 6.2 Modeling Program is run, total tonnages for criteria pollutants are easily calculated. Total tonnages of air pollution emissions for the entire freeway project should be included in the EIS to provide full disclosure of the adverse impacts that can be expected from the entire project. These totals should also include total tonnages for MSATs (on-road Mobile Source Air Toxics). This is especially important for Diesel Particulate Matter (DPM) due to the fact that it does not break down readily and may accumulate/concentrate on the south side of South Mountain and adversely impact air quality on the GRIC Reservation. The EIS includes modeling of estimated concentrations of air pollutants at arterials on the west side of Phoenix and the east side of the Project in the Chandler area. The EIS does not include modeling, however, of estimated concentrations of air pollutants along the stretch of freeway bordering the GRIC Reservation between I-10 on the east near Chandler and the point where the proposed freeway will cross the point parallel with the western border of the Community. Concentrations of air pollutants should be modeled along this stretch of the Project. The EIS should be revised to include modeling of current concentrations of criteria pollutants and MSATs (background concentrations) and concentrations of criteria pollutants and MSATs after construction of the freeway. This will provide information on what the expected increased concentrations of pollutants will be as a result of the proposed freeway construction. Page 4-65 of the EIS indicates that a PM-10 qualitative analysis was conducted, but a PM-2.5 qualitative analysis was not conducted. This omission is particularly troubling because a large portion of Diesel Particulate Matter (DPM) is PM-2.5. In addition, the EIS states that the analysis for PM-10 was performed for the Project to examine the areas that may be adversely affected by the proposed South Mountain Freeway. Again, however, the analysis omitted impacts to GRIC lands. The analysis only addressed the arterials on the west side of Phoenix. The EIS should be revised to include a qualitative analysis for both PM-10 and PM-2.5 on Community lands. Pages 4-70 thru 4-71 of the EIS indicate that emissions of on-road MSATs will be reduced as a result of the Project. This is somewhat misleading because it assumes reduced vehicle emissions

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13 (cont.)		The mobile source air toxics analysis presented beginning on page 4-70 of the Draft Environmental Impact Statement and updated beginning on page 4-77 of the Final Environmental Impact Statement is an estimated inventory of mobile source air toxics emissions for the entire Study Area. The requested information on vehicle miles traveled may be found in the Draft Environmental Impact Statement in Tables 4-34 and 4-35 on pages 4-72 and 4-73, respectfully. The vehicle miles traveled presented in the Draft Environmental Impact Statement were revised with traffic projections provided by the Maricopa Association of Governments in November 2013. These revised vehicle miles traveled are presented in the Final Environmental Impact Statement in Tables 4-34 through 4-36 on pages 4-80 and 4-81.
14	Air Quality	As discussed on page 4-76 of the Final Environmental Impact Statement, federally funded or approved transportation projects must meet applicable air quality analyses requirements of Section 176(c) of the Clean Air Act. The results of the analysis are summarized in the prologue to the Final Environmental Impact Statement (page xiii) and are more fully described beginning on page 4-68 of the Final Environmental Impact Statement. The carbon monoxide and particulate matter (PM₁₀) analyses demonstrated that the proposed freeway would not contribute to any new localized violations, increase the frequency or severity of any existing violation, or delay timely attainment of the National Ambient Air Quality Standards or any required interim emissions reductions or other milestones. The analysis performed for mobile source air toxics used an inventory approach, and total tonnages for mobile source air toxics emissions (including diesel particulate matter) may be found in the Draft Environmental Impact Statement, in Tables 4-34 and 4-35 on pages 4-72 and 4-73, and in the Final Environmental Impact Statement in Tables 4-34 through 4-36 on pages 4-80 and 4-81.
15	Air Quality	As noted on page 4-65 of the Draft Environmental Impact Statement, over 700 locations within the Study Area were modeled at various distances from the proposed road's centerline for existing traffic conditions and roadway configurations for Interstate 10, for major arterial street intersections near the proposed action alternatives, and for areas located at the proposed action alternatives' interchanges. These locations were chosen to meet the criteria for selecting modeling locations as specified in Title 40 Code of Federal Regulations § 93.123(a) and to represent the areas of highest concentrations. The analysis demonstrated that none of the action alternatives would violate the National Ambient Air Quality Standards, including those modeled locations at proposed fully directional interchanges along the Gila River Indian Community boundary. The air quality analyses were updated for the Final Environmental Impact Statement, including a quantitative particulate matter (PM₁₀) analysis, and are more fully described beginning on page 4-68 of the Final Environmental Impact Statement. Despite including conservative background levels, concentrations of air pollutants violating National Ambient Air Quality Standards were not predicted. The carbon monoxide analysis results presented in Table 4-32 on page 4-76 of the Final Environmental Impact Statement and the particulate matter (PM₁₀) analysis results presented in Table 4-33 on page 4-77 of the Final Environmental Impact Statement show concentrations at the proposed freeway. Existing levels are represented by the background levels.

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	<i>GRIC's Comments on the South Mountain 202 Freeway DEIS</i> Page 5 of 9 inversion and stagnant air conditions. The DEIS indicates that the Project will improve air quality in the Phoenix Metro area, but the DEIS does not address the adverse impacts on air quality within the Community. The DEIS should be revised to specifically evaluate the adverse impacts on air quality on the GRIC Reservation. During early public meetings with ADOT and other agencies, GRIC Air Quality Program personnel requested, on multiple occasions, total estimated air pollution emissions from the Project. More specifically, GRIC requested information on estimated Vehicle Miles Travelled (VMT) per day and the total annual tonnages for criteria pollutants and Hazardous Air Pollutants (HAPs) resulting from construction and operation of the freeway. While ADOT indicated that this information would be provided in the EIS, the DEIS does not contain such emission calculations or total tonnages of pollutants. The EIS should be supplemented to include this information. The EIS indicates on page 4-65 that the Mobile 6.2 Modeling Program was run for carbon monoxide (CO), however, as ADOT has indicated, project specific total tonnages for CO and other criteria pollutants are not included in the EIS. Once the Mobile 6.2 Modeling Program is run, total tonnages for criteria pollutants are easily calculated. Total tonnages of air pollution emissions for the entire freeway project should be included in the EIS to provide full disclosure of the adverse impacts that can be expected from the entire project. These totals should also include total tonnages for MSATs (on-road Mobile Source Air Toxics). This is especially important for Diesel Particulate Matter (DPM) due to the fact that it does not break down readily and may accumulate/concentrate on the south side of South Mountain and adversely impact air quality on the GRIC Reservation. 15 The EIS includes modeling of estimated concentrations of air pollutants at arterials on the west side of Phoenix and the east side of the Project in the Chandler area. The EIS does not include modeling, however, of estimated concentrations of air pollutants along the stretch of freeway bordering the GRIC Reservation between I-10 on the east near Chandler and the point where the proposed freeway will cross the point parallel with the western border of the Community. Concentrations of air pollutants should be modeled along this stretch of the Project. The EIS should be revised to include modeling of current concentrations of criteria pollutants and MSATs (background concentrations) and concentrations of criteria pollutants and MSATs after construction of the freeway. This will provide information on what the expected increased concentrations of pollutants will be as a result of the proposed freeway construction. 16 Page 4-65 of the EIS indicates that a PM-10 qualitative analysis was conducted, but a PM-2.5 qualitative analysis was not conducted. This omission is particularly troubling because a large portion of Diesel Particulate Matter (DPM) is PM-2.5. In addition, the EIS states that the analysis for PM-10 was performed for the Project to examine the areas that may be adversely affected by the proposed South Mountain Freeway. Again, however, the analysis omitted impacts to GRIC lands. The analysis only addressed the arterials on the west side of Phoenix. The EIS should be revised to include a qualitative analysis for both PM-10 and PM-2.5 on Community lands. Pages 4-70 thru 4-71 of the EIS indicate that emissions of on-road MSATs will be reduced as a result of the Project. This is somewhat misleading because it assumes reduced vehicle emissions

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15 (cont.)		The mobile source air toxics analysis conducted for the Final Environmental Impact Statement demonstrated that total mobile source air toxics emissions would decline by 57 percent to more than 90 percent between 2012 and 2035 even though traffic is expected to increase by 47 percent (Final Environmental Impact Statement Table 4-36 on page 4-81). The mobile source air toxics analysis results presented in Tables 4-34 through 4-36 on pages 4-80 and 4-81 of the Final Environmental Impact Statement show emissions predicted with the Preferred (W59/E1) and No-Action Alternatives.
16	Air Quality	As noted on page 4-62 of the Draft Environmental Impact Statement, the Maricopa County 2008 Periodic Emissions Inventory attributes only 34 percent of particulate matter (PM_{2.5}) emissions to on-road mobile sources. Also on page 4-62 of the Draft Environmental Impact Statement, the Federal Highway Administration attributed less than 40 percent of national diesel particulate matter emissions in 1999 to on-road sources. Although the qualitative particulate matter (PM₁₀) hot-spot analysis performed in the Draft Environmental Impact Statement met 40 Code of Federal Regulations § 93.111(c), the Arizona Department of Transportation and Federal Highway Administration have updated the qualitative analysis to a particulate matter (PM₁₀) quantitative analysis for the Final Environmental Impact Statement to ensure that a state-of-the-art analysis is completed for the proposed action. The quantitative project-level particulate matter (PM₁₀) hot-spot analysis prepared for the proposed project is summarized in the prologue to the Final Environmental Impact Statement (page xiii) and is more fully described beginning on page 4-68 of the Final Environmental Impact Statement. The carbon monoxide and particulate matter (PM₁₀) analyses demonstrated that the proposed freeway would not contribute to any new localized violations, increase the frequency or severity of any existing violation, or delay timely attainment of the National Ambient Air Quality Standards or any required interim emissions reductions or other milestones. A particulate matter (PM_{2.5}) analysis (qualitative or quantitative) is not required and was not performed because the area is in attainment for the particulate matter (PM_{2.5}) National Ambient Air Quality Standards.

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17	Air Quality	The mobile source air toxics emissions information presented in the Draft and Final Environmental Impact Statements demonstrates that mobile source air toxics emissions at the Study Area level would be much lower in the future. The U.S. Environmental Protection Agency's MOVES model also predicts lower mobile source air toxics emissions in the future. This model includes the effects of various control programs in the generation of emission factors for future years that are considered "reasonably foreseeable" future actions. Because the model includes these emission control programs in the generation of emission factors, it is not possible, and would be unacceptable to the U.S. Environmental Protection Agency, to disable these control program assumptions in the model. Increases in traffic volumes attributable to a project do not necessarily result in an increase in emissions over time because the U.S. Environmental Protection Agency's emissions control regulations and fleet turnover also play a role. In the U.S. Environmental Protection Agency's MOVES model, emissions rates for mobile source air toxics drop by 80 to 90 percent between 2012 and 2025. The effects of these reductions are apparent from the mobile source air toxics analysis conducted for the Final Environmental Impact Statement; in the mobile source air toxics study area, total mobile source air toxics emissions would decline by 57 to more than 90 percent even though traffic is expected to increase by 47 percent (Final Environmental Impact Statement Table 4-36 on page 4-81). The Draft Environmental Impact Statement provided the results of modeling for each of the seven priority mobile source air toxics, in both the Eastern and Western Subareas, and compared relative mobile source air toxics emissions that would result from three different potential alternatives (W59, W71, W101) as compared with the No-Action Alternative. It also included modeling of mobile source air toxics emissions in the overall mobile source air toxics study area assuming the W59 Alternative (see pages 4-70 to 4-74 of the Draft Environmental Impact Statement) along with implementation of recent U.S. Environmental Protection Agency mobile source air toxics rules. During the period when the project has been under review, the U.S. Environmental Protection Agency has issued two rules on controlling mobile source air toxics emissions from motor vehicles (66 <i>Federal Register</i> 17229 [March 29, 2001] and 72 <i>Federal Register</i> 8427 [February 26, 2007]). In those rules, the U.S. Environmental Protection Agency examined the impacts of existing and newly promulgated mobile source control programs, including its reformulated gasoline program, its national low emission vehicle standards, its Tier 2 motor vehicle emissions standards and gasoline sulfur control requirements, and heavy duty engine and vehicle standards and on-highway diesel fuel sulfur control requirements. As a result, the U.S. Environmental Protection Agency adopted controls on gasoline and passenger vehicles that significantly reduce emissions of benzene and other mobile source air toxics such as 1,3-butadiene; formaldehyde; acetaldehyde; acrolein; and naphthalene; as well as significant reductions in emissions of particulate matter from passenger vehicles. On March 3, 2014, the U.S. Environmental Protection Agency also promulgated new "Tier 3" vehicle and fuel regulations, which will produce additional reductions of mobile source air toxics pollutants. Since these reductions have not yet been incorporated into the U.S. Environmental Protection Agency's emissions model, they are not accounted for in the South Mountain Freeway analysis. While the Federal Highway Administration did not produce stand-alone emissions estimates for the South Mountain Freeway corridor, the carbon monoxide analysis presented on page 4-65 of the Draft Environmental Impact Statement and updated

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18	<i>GRIC's Comments on the South Mountain 202 Freeway DEIS</i> <i>Page 6 of 9</i> based on cleaner fuels requirements that may be promulgated in the future. This also applies to the regional study area, the western subarea and the eastern subarea (see Figure 4-27 of the EIS). These areas include the Phoenix metro area with areas of very congested vehicle traffic patterns. Diverting traffic from these areas to the proposed South Mountain freeway will temporarily relieve traffic congestion and result in pollutant concentration reductions in the study area when combined with emission reductions from cleaner fuels. If the area of the proposed freeway between I-10 on the east and I-10 on the west are considered exclusively, however, emissions of MSATs will actually increase from background concentrations to concentration levels that have not been modeled for this EIS. In addition, it is unknown if all the emission reductions from the proposed clean fuel requirements assumed in the modeling program will actually be implemented. The EIS should be revised to clarify these issues and should include a description of what the increases of MSATs will be in the area between I-10 on the east and I-10 on the west (e.g., the area along the border of and within GRIC). Finally, the DEIS does not include an Environmental Health Assessment for Hazardous Air Pollutants (HAPs) or MSATs to address the potential health impacts to Community Members/residents at GRIC. The EIS also fails to include an Environmental Health Assessment for Criteria Pollutants to address the potential health impacts to Community Members/residents from construction and operation of the freeway. Although the Project is not being proposed for construction on Community lands, air quality at GRIC will be adversely impacted by vehicle emissions from the freeway, directly impacting the quality of the air that Community members breathe. The DEIS should be revised to include Environmental Health Assessments for Criteria pollutants and MSATs to determine health impacts on Community members from construction and operation of the freeway. 2. <u>Aquatic Resources</u> The Aquatic/Wetlands Communities section of the DEIS fails to identify or discuss the significance of or impacts to the Pee Posh Wetlands, which occupy the northeast corner of the Community within the Project's study area. The Pee Posh Wetlands are a significant environmental and cultural resource for the Community that the GRIC Council placed in a conservation easement through Council Resolution GR-129-10. Since 2001, environmental characterization, enhancement, and protection work has been ongoing in the Pee Posh Wetlands. Construction of the Project may present a significant impact to the Pee Posh Wetland conservation easement. For over 40 years, the Pee Posh Wetlands has been supported by irrigation and runoff return flows released into the Laveen Area Conveyance Channel (LACC). Possible disruption of these flows during construction of the Project could cause a significant loss of native plant and animal life. With the construction of the LACC in 2003, it was necessary to re-route water back into the Pee Posh Wetlands to save the wetlands from considerable native habitat loss. The Pee Posh Wetlands is susceptible to upstream construction and therefore requires mitigation measures to prevent loss of valuable habitat. 3. <u>Biological Resources</u> The Project could also interfere with eagle foraging habitat at the Community. The Community has an active eagle nest site within the Pee Posh Wetlands. The Pee Posh Wetlands Breeding

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17 (cont.)		on page 4-75 of the Final Environmental Impact Statement represents projected carbon monoxide concentrations along the project corridor, including those proposed interchange locations along the South Mountain Freeway corridor. This also applies to the particulate matter (PM₁₀) hot-spot analysis that is discussed on page 4-76 of the Final Environmental Impact Statement. The carbon monoxide and particulate matter (PM₁₀) analyses demonstrated that the proposed freeway would not contribute to any new localized violations, increase the frequency or severity of any existing violation, or delay timely attainment of the National Ambient Air Quality Standards or any required interim emissions reductions or other milestones. The mobile source air toxics analysis presented beginning on page 4-70 of the Draft Environmental Impact Statement and updated beginning on page 4-77 of the Final Environmental Impact Statement is an estimated inventory of mobile source air toxics emissions for the entire Study Area. Such an inventory would be incomplete without the inclusion of emissions from other Study Area roads because these roads are within the Study Area and human exposure would be a combination of the emissions from all roads in the Study Area. It is stated on page S-14 of the Final Environmental Impact Statement that “For all action alternatives, increased traffic volumes would produce elevated mobile source air toxic emissions near the proposed action. The action alternatives would reduce congestion and improve regional traffic conditions, which would reduce regional mobile source air toxic emissions. Additionally, overall mobile source air toxic levels would decline from existing levels because of compliance with strategies identified by the U.S. Environmental Protection Agency’s national control programs.”
18	Health Risk Assessment	The Federal Highway Administration’s National Environmental Policy Act documents are developed under two guiding regulations: the Council on Environmental Quality’s National Environmental Policy Act regulations applicable to all federal agencies (40 Code of Federal Regulations Parts 1500–1508) and the Federal Highway Administration’s implementing regulations governing Federal Highway Administration National Environmental Policy Act documents (23 Code of Federal Regulations Part 771). In its mobile source air toxics guidance, the Federal Highway Administration discusses 40 Code of Federal Regulations Part 1502.22 and acknowledges that while much work has been done to assess the overall health risk of mobile source air toxics, analytical tools and techniques for assessing project-specific health outcomes as a result of lifetime exposures to mobile source air toxics remain limited. These limitations impede the ability to evaluate the potential health risks attributable to exposure to mobile source air toxics as part of the decision-making process in the National Environmental Policy Act context. However, as with any analysis that the Federal Highway Administration conducts for National Environmental Policy Act purposes, the Federal Highway Administration’s approach for mobile source air toxic analysis in National Environmental Policy Act documents is informed not just by 40 Code of Federal Regulations Part 1502.22, but by all applicable Council on Environmental Quality requirements. The appropriateness of air toxics health risk assessment as an analysis method for National Environmental Policy Act documents is discussed below, in the context of Council on Environmental Quality requirements for these documents. In addition to the 40 Code of Federal Regulations Part 1502.22 provisions regarding uncertainty and limitations discussed in the Federal Highway Administration’s MSAT Interim Guidance Appendix C, three other provisions of the Council on Environmental Quality regulations are particularly relevant to the topic of health risk assessment:

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18 (cont.)		40 Code of Federal Regulations § 1500.1(b): NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail. 40 Code of Federal Regulations § 1502.1: An environmental impact statement is more than a disclosure document. It shall be used by Federal officials in conjunction with other relevant material to plan actions and make decisions. 40 Code of Federal Regulations § 1502.2: (a) Environmental impact statements shall be analytic rather than encyclopedic. (b) Impacts shall be discussed in proportion to their significance.(c) Environmental impact statements shall be kept concise and shall be no longer than absolutely necessary to comply with NEPA and with these regulations. Section 1500.1(b) states that information for decision making must be of high quality and based on accurate scientific analysis. Air toxics health risk assessments can involve large uncertainties. The mobile source air toxic health risk assessment uncertainty builds on itself—each step of the analysis involves uncertainties, including modeling traffic and then modeling emissions, and using this estimated output to model dispersion/concentrations, which provide information for estimating or assuming exposures to those concentrations, and finally predicting health outcomes. Major uncertainties are associated with traffic and emissions projections over a 70-year period, and dispersion models are typically held to a “factor of 2” performance standard. Health impacts of mobile source air toxics in the U.S. Environmental Protection Agency Integrated Risk Information System are based on a 70-year lifetime exposure, which introduces significant uncertainty (e.g., on average, people in the United States change residence approximately once every 8 years and change jobs once every 3). Finally, as noted above, the U.S. Environmental Protection Agency’s Integrated Risk Information System provides toxicity (risk) values for various pollutants and routes of exposure; in a health risk assessment, the Federal Highway Administration would compare calculated concentrations of mobile source air toxic pollutants to the Integrated Risk Information System values to estimate health risk. In the Integrated Risk Information System, the U.S. Environmental Protection Agency states the toxicity values are believed to be accurate to within an order of magnitude (a factor of 10). The total cumulative uncertainty involved in highway project health risk assessment is much larger than the change in emissions attributable to projects (typically a few percentage points). In this context, the information would not necessarily have a strong nexus to the requirements for high-quality information and accurate scientific analysis. Section 1500.1(b) also directs agencies to focus their National Environmental Policy Act analysis and documentation on issues that are truly significant to the action in question. In the context of mobile source air toxics, the Federal Highway Administration must consider whether changes in mobile source air toxic emissions attributable to a project have the potential for significant health risk. Using cancer risk as an example, the U.S. Environmental Protection Agency estimates that the overall risk of cancer in the United States is approximately 330,000 in a million, and that air toxics (from all sources) are responsible for a risk of approximately 50 in a million. In its most recent mobile source air toxics rule-making, the U.S. Environmental Protection Agency estimated mobile source air toxic cancer risk, after implementation of emissions controls, at approximately 5 in a million

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18 (cont.)		(or 0.0015 percent of overall cancer risk from any cause). For the Preferred Alternative, the mobile source air toxic emissions analysis for the Study Area found little difference in total annual emissions of mobile source air toxic emissions between the Preferred and No-Action Alternatives (less than a 1 percent difference) in 2025 and 2035. With the Preferred Alternative in 2035, modeled mobile source air toxic emissions would decrease by more than 80 percent, depending on the pollutant, despite a 47 percent increase in vehicle miles traveled in the Study Area compared with 2012 conditions (see the discussion beginning on page 4-77 of the Final Environmental Impact Statement). In summary, available information from the U.S. Environmental Protection Agency indicates that mobile source air toxics are a small component of overall cancer risk, and the analysis for the Final Environmental Impact Statement indicates both that the Preferred Alternative would result in a small change in the emissions contributing to this risk and that emissions will decline by a large amount regardless of alternative. As discussed above and in the air quality technical report, results from the health risk assessment would be influenced more by the uncertainty introduced into the process through assumptions and speculations rather than by genuine insight into the actual health impacts directly attributable to mobile source air toxic exposure associated with a project. Therefore, outcomes of such a health risk assessment do not provide useful information for decision makers, as required by Section 1502.1. The Federal Highway Administration emissions analysis meets the requirement to produce information that is useful for both disclosure and decision making because it allows the public and decision makers to see which alternative has less mobile source air toxic emissions, with much less uncertainty than a health risk assessment. Given the uncertainty of a mobile source air toxic health risk assessment, the Federal Highway Administration instead addresses the potential impacts of mobile source air toxics through an emissions assessment in its National Environmental Policy Act documents. For smaller projects with a lower likelihood of a meaningful impact, this discussion is qualitative. For larger projects, emissions analysis is conducted. The Federal Highway Administration approach is consistent with the Council on Environmental Quality’s direction in Section 1502.2(b) to discuss impacts in proportion to their significance. The results of an emissions analysis can be summarized concisely in a National Environmental Policy Act document and provide useful information for decision makers (e.g., an alternative that has lower emissions is likely to be “better” from a mobile source air toxics health risk standpoint than one that has higher emissions). While the U.S. Environmental Protection Agency and the Federal Highway Administration both agree on the usefulness of addressing mobile source air toxics in National Environmental Policy Act documents for highway projects, the agencies disagree about the value of health risk assessment as a method for doing so.

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18 (cont.)		Another consideration with respect to health impacts is that the Preferred Alternative would also reduce in-vehicle mobile source air toxics exposure as opposed to the No Action Alternative. The U.S. Environmental Protection Agency has found that in-vehicle benzene concentrations were between 2.5 and 40 times higher than nearby ambient concentrations, based on a review of studies discussed in the Regulatory Impact Analysis for the U.S. Environmental Protection Agency’s 2007 mobile source air toxics rule-making (Final Regulatory Impact Analysis, Environmental Protection Agency 420-R-07-002, 3-17 [February 2007]). Construction of the Preferred Alternative would result in a reduction in benzene exposure to drivers and passengers for two reasons: decreased travel times (motorists would spend less time in traffic to reach their destinations) and lower emissions rates (attributable to speed improvements). Reducing on-road exposure would provide a health benefit for motorists using the roadway network. Congestion relief resulting from the proposed freeway would provide localized air quality emissions reductions on area freeways and arterial streets and at interchanges, benefiting users of area highways and those living near congested roads.

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	<i>GRIC's Comments on the South Mountain 202 Freeway DEIS</i> Page 6 of 9 based on cleaner fuels requirements that may be promulgated in the future. This also applies to the regional study area, the western subarea and the eastern subarea (see Figure 4-27 of the EIS). These areas include the Phoenix metro area with areas of very congested vehicle traffic patterns. Diverting traffic from these areas to the proposed South Mountain freeway will temporarily relieve traffic congestion and result in pollutant concentration reductions in the study area when combined with emission reductions from cleaner fuels. If the area of the proposed freeway between I-10 on the east and I-10 on the west are considered exclusively, however, emissions of MSATs will actually increase from background concentrations to concentration levels that have not been modeled for this EIS. In addition, it is unknown if all the emission reductions from the proposed clean fuel requirements assumed in the modeling program will actually be implemented. The EIS should be revised to clarify these issues and should include a description of what the increases of MSATs will be in the area between I-10 on the east and I-10 on the west (e.g., the area along the border of and within GRIC). Finally, the DEIS does not include an Environmental Health Assessment for Hazardous Air Pollutants (HAPs) or MSATs to address the potential health impacts to Community Members/residents at GRIC. The EIS also fails to include an Environmental Health Assessment for Criteria Pollutants to address the potential health impacts to Community Members/residents from construction and operation of the freeway. Although the Project is not being proposed for construction on Community lands, air quality at GRIC will be adversely impacted by vehicle emissions from the freeway, directly impacting the quality of the air that Community members breathe. The DEIS should be revised to include Environmental Health Assessments for Criteria pollutants and MSATs to determine health impacts on Community members from construction and operation of the freeway. 2. <u>Aquatic Resources</u> The Aquatic/Wetlands Communities section of the DEIS fails to identify or discuss the significance of or impacts to the Pee Posh Wetlands, which occupy the northeast corner of the Community within the Project's study area. The Pee Posh Wetlands are a significant environmental and cultural resource for the Community that the GRIC Council placed in a conservation easement through Council Resolution GR-129-10. Since 2001, environmental characterization, enhancement, and protection work has been ongoing in the Pee Posh Wetlands. Construction of the Project may present a significant impact to the Pee Posh Wetland conservation easement. For over 40 years, the Pee Posh Wetlands has been supported by irrigation and runoff return flows released into the Laveen Area Conveyance Channel (LACC). Possible disruption of these flows during construction of the Project could cause a significant loss of native plant and animal life. With the construction of the LACC in 2003, it was necessary to re-route water back into the Pee Posh Wetlands to save the wetlands from considerable native habitat loss. The Pee Posh Wetlands is susceptible to upstream construction and therefore requires mitigation measures to prevent loss of valuable habitat. 3. <u>Biological Resources</u> The Project could also interfere with eagle foraging habitat at the Community. The Community has an active eagle nest site within the Pee Posh Wetlands. The Pee Posh Wetlands Breeding
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19	Water Resources	As described in the Final Environmental Impact Statement in Chapter 2 and elaborated on in appropriate sections of Chapter 4, evaluation of impacts on resources located on Gila River Indian Community land were limited to visual inspection as permitted and as restricted by the Gila River Indian Community. As to drainage, as noted in Chapter 3 of the Final Environmental Impact Statement, the design of the proposed action is such as to not alter drainage onto Gila River Indian Community land. Further, the Rio Salado Oeste restoration project will restore habitat and flow conditions within the Salt River channel, including beneath the freeway bridge. The Pee Posh wetland area is discussed in the Draft Environmental Impact Statement on page 4-124, but not by name. A discussion of the Pee Posh wetlands was added to the Final Environmental Impact Statement on page 4-126. The Pee Posh wetlands would not be directly affected by any of the alternatives, and the future condition of the Pee Posh wetlands is likely to improve as a result of the restoration project.
20	Biology	The Pee Posh bald eagle breeding area is discussed in the Draft Environmental Impact Statement on page 4-124, but not by name. The information provided in the comment was taken into consideration in the development of a Biological Evaluation that was prepared and submitted to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and Gila River Indian Community Department of Environmental Quality. The Biological Evaluation addresses threatened and endangered species and the breeding eagles in the Pee Posh wetlands, in conformance to the Bald and Golden Eagle Protection Act. The action alternatives are not expected to affect the eagles' nesting activities because of the project's distance from the nest. The project may affect the eagles' foraging behavior along the Salt River when foraging opportunities exist near action alternatives. The Federal Highway Administration and Arizona Department of Transportation have committed to continue coordination with the Arizona Game and Fish Department, Gila River Indian Community Department of Environmental Quality, and U.S. Fish and Wildlife Service regarding wildlife concerns as a result of the freeway (see <i>Mitigation</i>, beginning on page 4-138 of the Final Environmental Impact Statement).

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	<i>GRIC's Comments on the South Mountain 202 Freeway DEIS</i> <i>Page 7 of 9</i> Areas is listed with the Southwestern Bald Eagle Management Committee's (SWBEMC) list of state-wide eagle Breeding Areas (BA). Since 2010, the site has been cooperatively managed by the Community and the SWBEMC. Breeding is currently occurring at the Pee Posh Wetlands BA site. Two nestling eagles were hatched in early February 2013. In late April, both nestlings successfully fledged from the nest. Currently, the fledglings are going out daily to actively forage with the adult eagles. The eagles' primary foraging areas at this time are the sand and gravel lakes immediately east of the nest site area. Community Department of Environmental Quality staff have observed eagle activity throughout the 2013 breeding season. Field observations this year indicate that the eagles are doing a significant portion of their foraging at the sand and gravel lakes located along the Salt River and the 75th Avenue alignment. These considerably large lakes are immediately accessible for foraging in comparison to other water bodies in the area, including the Tres Rios Wetlands and downstream perennial reaches of the Salt and Gila Rivers. Observation showed that the eagles, throughout the breeding season, consistently flew in prey deliveries directly from the sand and gravel lake sources. In addition to being observed flying directly to and from these sources, the eagles were also observed flying over these areas. Although direct access to the lake areas is restricted, visual observations were made using spotting scopes and binoculars. It can be estimated through observations over the course of this year's breeding season that 40 to 60 percent of the prey deliveries made by the eagles came from the sand and gravel lake sources to the east. The sand and gravel lakes east of the Pee Posh Wetlands BA are therefore considered to be a significant foraging source for the Pee Posh Wetlands eagles. Tres Rios and downstream perennial reaches of the Salt and Gila River confluence area represent the only other significant forging areas. However, these areas are characterized by high human activity produced by Tres Rios, PIR, and the Base and Meridian Wildlife Area, and high prey competition produced by osprey and other fish eating birds, including other eagles. Human activity and strong prey competition are known to cause stress to normal foraging activity in nesting eagle populations. Furthermore, prey delivery distance to the nest site is considerably farther from downstream foraging areas (approximately 4 miles) than it is from the sand and gravel lakes foraging areas (approximately 1.3 miles). In comparison to the downstream foraging sources, the sand and gravel lakes currently provide close accessible foraging for the eagles that is relatively free of human activity. The loss of these foraging sources due to the possible construction of the Project would significantly interfere with normal foraging activity and therefore could cause a loss of eagle productivity for the Pee Posh Wetlands BA. The Community recommends that measures be put in place to mitigate any loss of important eagle foraging habitat due to construction of the Project. 4. <u>Hazardous Waste</u> 21 Table 4-50 <i>Hazardous Materials Impacts, Action Alternatives</i> lists the E-1 Alignment as not impacting any Hazardous Materials Sites. The Boundary Site, a former pesticide airstrip, is located at the intersection of 51st Avenue and the Northern boundary and extends into the proposed E-1 Alignment. While the Boundary Site was remediated in 2004, it is worth noting in the DEIS, and would qualify as a low priority site.

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21	Hazardous Materials	The Boundary Site was investigated and included in early drafts of the Initial Site Assessment, when the E1 Alternative and the on-Gila River Indian Community Alignment were both still under consideration. The limits of the remediated site overlapped the on-Gila River Indian Community Alignment. The E1 Alternative, however, is located farther north and east than the on-Gila River Indian Community Alignment and does not share any footprint with the Boundary Site. Given the remediated nature of the site, its distance from the Preferred Alternative, and its position downgradient (downhill) from the Preferred Alternative, the Boundary Site was not included in the final Initial Site Assessment or the Draft Environmental Impact Statement.

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22	<i>GRIC's Comments on the South Mountain 202 Freeway DEIS</i> <i>Page 8 of 9</i> The transport of hazardous materials continues to be a topic of discussion for the Project. While the E-1 Alignment is not located on the Community, it parallels the northern boundary of the Community and has the real potential to create impacts on Community lands. The DEIS briefly explains the transport of hazardous materials on the Regional Freeway System and the procedures ADOT incorporates to restrict hazardous material transport through particular areas. The transport of hazardous materials at or near the Community's boundary will continue to be of concern, and potential impacts on the Community were not adequately addressed in the DEIS. Further hazardous waste transport studies conducted by ADOT will serve as the basis for improved emergency response planning as well as increase safety for the Community. The Hazardous Materials section beginning on page 4-152 specifically addresses the potential interaction with known hazardous waste sites during the construction phase of the Project. The Draft EIS does not address the transportation of hazardous materials during the operational phase of the proposed freeway. Mitigation measures should be addressed to avoid, reduce and ultimately mitigate environmental impacts should there be an incident involving hazardous materials/hazardous waste. 5. <u>General Environmental Comments</u> In addition to the environmental comments included above, the Community would also like to call special attention to what may be seen as common public and private nuisance issues such as noise and light pollution and visibility issues that may impact residents and wildlife in the Community areas along the proposed highway corridor. While the impacts may seem minimal based on ADOT standards, the true impacts may be much more significant in this area of the Community, which in many cases is pristine undisturbed desert. The Project will likely increase the potential for encroachment, trespassing, illegal dumping, etc. on Community lands. These impacts are not specifically addressed in the DEIS. 6. <u>Public Safety / Emergency Response</u> Related to the Community's hazardous materials comments in sub-section 4 above, the Community has public safety concerns that were not adequately addressed in the DEIS regarding the potential impacts from routing hazardous materials and other cargo so close to the Community's Reservation boundary. Routing all of the West Valley's hazardous cargo along the proposed route to gain access to I-10 South and East presents the potential for hazardous material incidents, which, by their very nature – i.e., spill, fire, or explosion – will affect surrounding lands. Similarly, this routing could result in increased vehicular accidents along the Reservation boundary. The State does not have the resources to adequately respond to such incidents without the use of local jurisdictions; while the state has experts and responders, these responders cannot handle these incidents alone. Despite the fact that the E-1 alignment is located within the City of Phoenix, the Community would be one of the first responders to any incident along the extension from the east to the west up to 51st Avenue and Dobbins based upon the Community's mutual aide partnership with Phoenix.

Code	Issue	Response
22	Hazardous Materials	The Final Environmental Impact Statement discloses the context and intensity of the perceived impact noted in the comment. Arizona highways, as are most highways across the United States, are open to all kinds of traffic, so long as the cargo being carried is in accordance with U.S. Department of Transportation regulations for the specific type of cargo. The Arizona Department of Transportation has a few locations in the state with hazardous cargo restrictions, but these restrictions are based on emergency response issues or roadway design limitations specific to that location. For example, the Interstate 10 Deck Park Tunnel has certain hazardous cargo transport restrictions because of the limited ability for emergency responders to address a hazardous materials incident in the tunnel. The South Mountain Freeway, if implemented, is expected to operate under the same rules as other similar facilities in the state; transport of hazardous cargo would be expected to be permissible (see text box on page 4-166 of the Final Environmental Impact Statement). Hazardous materials commodity flow studies and other information are used by emergency response planners (such as the Arizona State Emergency Response Commission statewide and the Maricopa County Local Emergency Planning Commission for Maricopa County) as one of the elements considered when developing emergency response plans. If the plan were amended, it would be made available to the Arizona Department of Transportation. In the event of an incident with a hazardous materials issue on a State or federal highway, the emergency responders contact the Arizona Department of Transportation's Traffic Operations Center to report the incident. The Traffic Operations Center then contacts the Arizona Department of Transportation's Safety and Risk Management group, which responds to the accident scene and assesses needs in concert with the Incident Commander from the responding agency with jurisdiction. If requested, the Arizona Department of Transportation can assist cleanup activities by engaging specialty subcontractors with whom the Arizona Department of Environmental Quality has contracts for such support. The Arizona Department of Transportation's Safety and Risk Management group's charge is primarily public health protection, with cleanup support being secondary.

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23	Noise	Noise and visual resources are addressed in the <i>Noise</i> and <i>Visual Resources</i> sections of Chapter 4 of the Draft Environmental Impact Statement on pages 4-80 and 4-155, respectively, and on pages 4-88 and 4-167 of the Final Environmental Impact Statement, respectively. The noise analysis conducted for and documented in the Draft and Final Environmental Impact Statements complied with the Federal Highway Administration's regulations for conducting noise analyses in 23 Code of Federal Regulations § 772. The noise analysis was updated for the Final Environmental Impact Statement using the most recent Federal Highway Administration and Arizona Department of Transportation policy and traffic projections provided by the Maricopa Association of Governments. No substantial differences between the analyses presented in the Draft and the Final Environmental Impact Statements resulted. This report may also be found on the project Web site at <azdot.gov/southmountainfreeway>. Without noise mitigation, noise levels from the proposed South Mountain Freeway are predicted to range from 61 A-weighted decibels to 78 A-weighted decibels at the nearest homes, depending on the distance from the freeway. Noise mitigation was estimated to reduce those noise levels to a range of 55 A-weighted decibels to 64 A-weighted decibels for most of the areas (see Final Environmental Impact Statement beginning on page 4-91). Because of topography, local street traffic, or other engineering constraints in a few areas, estimated noise levels would not be reduced as much and would be as high as 64 A-weighted decibels to 70 A-weighted decibels in those areas. As discussed on page 4-136 of the Final Environmental Impact Statement, most impacts on wildlife would occur in the Eastern Section of the Study Area where there is more undeveloped land and more natural habitat. During construction activities, noise disturbance would represent a short-term impact on wildlife that would vary by location and intensity and that may affect bird and mammal activities such as nesting and foraging. During freeway operation, the increase in traffic noise would be a long-term impact on wildlife that would vary in intensity depending on factors such as time of day and day of the week. The long-term increase in traffic noise may affect the ability of some animals to avoid predators, communicate, and find food when near the proposed action. Impacts on biological resources during operation of the proposed freeway would also include vehicle-wildlife collisions and an increase in the effects of habitat fragmentation attributable to wildlife avoidance of activity associated with the freeway. Although not recognized by the Federal Highway Administration as mitigation, rubberized asphalt would be used as the top level of paving; it is discussed on Final Environmental Impact Statement beginning on page 4-91. As discussed on page 4-169 of the Final Environmental Impact Statement, in determining visual impacts of the proposed freeway, attention was given to sensitive views along the E1 Alternative, including views from Phoenix South Mountain Park/ Preserve, views from residential areas in Ahwatukee Foothills Village, views from the Gila River Indian Community, and views of the major road cuts at the western end of Phoenix South Mountain Park/Preserve. Page 4-170 of the Final Environmental Impact Statement discusses a host of mitigation measures that the Arizona Department of Transportation might employ to avoid creating visual impacts, reduce such impacts, or otherwise mitigate visual impacts associated with the proposed project.

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	<i>GRIC's Comments on the South Mountain 202 Freeway DEIS</i> Page 8 of 9 The transport of hazardous materials continues to be a topic of discussion for the Project. While the E-1 Alignment is not located on the Community, it parallels the northern boundary of the Community and has the real potential to create impacts on Community lands. The DEIS briefly explains the transport of hazardous materials on the Regional Freeway System and the procedures ADOT incorporates to restrict hazardous material transport through particular areas. The transport of hazardous materials at or near the Community's boundary will continue to be of concern, and potential impacts on the Community were not adequately addressed in the DEIS. Further hazardous waste transport studies conducted by ADOT will serve as the basis for improved emergency response planning as well as increase safety for the Community. The Hazardous Materials section beginning on page 4-152 specifically addresses the potential interaction with known hazardous waste sites during the construction phase of the Project. The Draft EIS does not address the transportation of hazardous materials during the operational phase of the proposed freeway. Mitigation measures should be addressed to avoid, reduce and ultimately mitigate environmental impacts should there be an incident involving hazardous materials/hazardous waste. 5. <u>General Environmental Comments</u> In addition to the environmental comments included above, the Community would also like to call special attention to what may be seen as common public and private nuisance issues such as noise and light pollution and visibility issues that may impact residents and wildlife in the Community areas along the proposed highway corridor. While the impacts may seem minimal based on ADOT standards, the true impacts may be much more significant in this area of the Community, which in many cases is pristine undisturbed desert. The Project will likely increase the potential for encroachment, trespassing, illegal dumping, etc. on Community lands. These impacts are not specifically addressed in the DEIS. 6. <u>Public Safety / Emergency Response</u> Related to the Community's hazardous materials comments in sub-section 4 above, the Community has public safety concerns that were not adequately addressed in the DEIS regarding the potential impacts from routing hazardous materials and other cargo so close to the Community's Reservation boundary. Routing all of the West Valley's hazardous cargo along the proposed route to gain access to I-10 South and East presents the potential for hazardous material incidents, which, by their very nature – i.e., spill, fire, or explosion – will affect surrounding lands. Similarly, this routing could result in increased vehicular accidents along the Reservation boundary. The State does not have the resources to adequately respond to such incidents without the use of local jurisdictions; while the state has experts and responders, these responders cannot handle these incidents alone. Despite the fact that the E-1 alignment is located within the City of Phoenix, the Community would be one of the first responders to any incident along the extension from the east to the west up to 51st Avenue and Dobbins based upon the Community's mutual aide partnership with Phoenix.
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24	Design	As discussed in several locations within the Final Environmental Impact Statement (see, for example, page 4-178), the Arizona Department of Transportation would provide and maintain right-of-way fencing between the proposed freeway and the Gila River Indian Community boundary. This fencing would likely minimize any encroachment, trespassing, and illegal dumping on Gila River Indian Community land.
25	Traffic	Creating a truck bypass is not a goal of the proposed action. The proposed freeway is part of a transportation system developed to improve mobility in the region by increasing capacity and allowing traffic—including truck traffic—to access a segment of the “loop” system (see pages 1-21, 1-22, 3-1, and 3-3 of the Final Environmental Impact Statement) in the Phoenix metropolitan area. The proposed South Mountain Freeway would be a commuter corridor, helping to move local traffic. As with all other freeways in the region, trucks would use it for the through-transport of freight, for transport to and from distribution centers, and for transport to support local commerce. Nevertheless, the primary user vehicles of the proposed freeway would be automobiles. The Maricopa Association of Governments regional travel demand model projects that truck traffic would represent approximately 10 percent of the total traffic on the proposed freeway, similar to what is currently experienced on other regional freeways such as Interstate 10, State Route 101L, and U.S. Route 60. As disclosed in the Final Environmental Impact Statement, it is expected that “true” through-truck traffic (not having to stop in the metropolitan area) would continue to use the faster, designated, and posted bypass system of Interstate 8 and State Route 85 (see page 3-64 of the Final Environmental Impact Statement). Hazardous materials commodity flow studies and other information are used by emergency response planners (such as the Arizona State Emergency Response Commission statewide and the Maricopa County Local Emergency Planning Commission for Maricopa County) as one of the elements considered when developing emergency response plans. If the plan were amended, it would be made available to the Arizona Department of Transportation. In the event of an incident with a hazardous materials issue on a State or federal highway, the emergency responders contact the Arizona Department of Transportation's Traffic Operations Center to report the incident. The Traffic Operations Center then contacts the Arizona Department of Transportation's Safety and Risk Management group, which responds to the accident scene and assesses needs in concert with the Incident Commander from the responding agency with jurisdiction. If requested, the Arizona Department of Transportation can assist cleanup activities by engaging specialty subcontractors with whom the Arizona Department of Environmental Quality has contracts for such support. The Arizona Department of Transportation's Safety and Risk Management group's charge is primarily public health protection, with cleanup support being secondary. If the Gila River Indian Community were unprepared to respond to emergency situations on the proposed facility, the Arizona State Emergency Response Commission could coordinate regional responses from other Local Emergency Planning Commissions in the region that may have more resources.

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26	<i>GRIC's Comments on the South Mountain 202 Freeway DEIS</i> <i>Page 9 of 9</i> Thus, while some of this responsibility will fall on the Community, the DEIS neither identifies the need for, nor assesses whether the Community has the resources to provide for, such assistance. It is significant to note that the Community receives no funding to respond to such incidents and Fire Districts and Municipalities are prohibited from charging for or recuperating costs associated with providing such emergency services. Finally, the DEIS does not adequately analyze impacts on the Community's Reservation based upon the potential for increased traffic on the Reservation due to a partial or full closure of the Loop 200 extension. Such an increase in the amount and duration of traffic on the Reservation could increase demands on Community public safety officers and first responders, as well as create environmental impacts on the Reservation. Planning for such situations is a must, and should have been studied in the DEIS.

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26	Traffic	The Arizona Department of Transportation has developed an “Alternate Route Plan” for all State-operated roads, including highways, freeways, and Interstate highways. The plan is amended prior to opening of a new facility to include alternate routes for incidents on the new facility as well as conditions in which the new facility would be the alternate route for incidents on other State-operated roads. The alternate route plan is reviewed by Arizona Department of Public Safety, Arizona Department of Transportation, and local agencies. The Arizona Department of Transportation is not permitted to identify a local road as an alternate route on a dynamic message sign without an agreement from the agency that operates that road. At this time, there are no agreements in place with any local agencies. However, the use of local roads to avoid an incident is permitted and occurs regularly at the discretion of the motorist. If a local agency would like to encourage the use of a specific road during an incident on a State road, it would need to provide this information to the Arizona Department of Transportation and formally agree to allow the Arizona Department of Transportation to display the local road as an alternate route on a dynamic message sign. The primary goal of the Arizona Department of Transportation and the Arizona Department of Public Safety is to clear the road and open it back to normal traffic operation as soon as possible. The South Mountain Freeway project includes funding for the full array of intelligent transportation system infrastructure (cameras, loop detectors, ramp meters, etc.). This would allow the Arizona Department of Transportation to quickly respond to incidents and notify members of the traveling public of downstream conditions so they can use an alternate State road to avoid the incident. The effects of the proposed action on the local roadway network are accounted for in Chapters 1 and 3 of the Draft Environmental Impact Statement. Cut-line analysis was undertaken to assess the effects of the action and No-Action alternatives on the existing and reasonably foreseeable future road network (as conveyed in jurisdictional long-range plans). The Gila River Indian Community opted not to disclose plans for any roadway network plans now or in the future.

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	 SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY 10005 East Osborn Road / Scottsdale, Arizona 85256-9722 / Phone (480) 362-7400 / Fax (480) 362-7593 June 12, 2013 RECEIVED Mr. John Halikowski Director Arizona Department of Transportation 206 South 17th Avenue, Mail Drop 100A Room 135 Phoenix, Arizona 85007 JUL 20 2013 AZ Department of Transportation Director's Office Re: Salt River Pima-Maricopa Indian Community comments for the Loop 202 South Mountain Freeway Study Draft Environmental Impact Study (EIS) Dear Mr. Halikowski, The Salt River Pima-Maricopa Indian Community (the "Community"), a federally recognized Indian tribe, has a longstanding relationship with the Arizona Department of Transportation (ADOT) that originated because of transportation planning and development in the East Valley that affected lands within and adjacent to the Community's borders. As a business and land owner in the West Valley, we are aware of the changes in the region that require additional transportation planning and development. Although we support ADOT's long range transportation planning with the Loop 202 South Mountain project the Community is aware that such plans and decisions will have impacts to one of our businesses and lands in the West valley and that it is necessary to express our views. The Community owns and operates the Phoenix Cement Company ("PCC") which has operated a facility at 67th Avenue and Southern Avenue since 1987. PCC is a division of tribal government and the Community directly benefits from its business operations. We have a full scale mining operation at this location, inclusive of aggregates crushing, screening, washing operations as well as scale facilities and ready mixed concrete batching and mixing plants. This operation is PCC's sole operation for servicing its west side customer base. Importantly, revenue generated from PCC helps to provide for the welfare of our members. The Community has reviewed the Loop 202 South Mountain Freeway Study Draft EIS with interest and we would like to share our comments to be included in the public record and to be given consideration by ADOT before any final decision is issued. First, the Community recognizes that the W59 Alternative, designated as the Preferred Alternative, will directly impact all or a portion of our business operations at 67th Avenue and Southern Avenue. As a result, the Community would like the opportunity to communicate more directly with you,

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1	Acquisitions and Relocations	Property acquisition and relocation assistance to displaced individuals and businesses is governed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. This process outlines determination of property values through the acquisition process. The process requires government agencies to provide just compensation (fair market value) for any acquired property. The acquisition process includes consideration of impacts to access, partial acquisitions, determining values of remaining parcels, and special needs of relocated businesses or individuals (e.g., elderly or disabled). For example, if a relocated business required specific zoning, approvals or permits, permit fees, or closure or abandonment processes, these would be considered in property negotiations. Property acquisition procedures are described in detail on the Arizona Department of Transportation's Web site, in the Right-of-Way Group Acquisition Section, at <azdot.gov>. This section of the Arizona Department of Transportation Web site includes a link to the Arizona Department of Transportation's <i>Right-of-Way Procedures Manual</i> , which has an extensive discussion of the whole process. For further discussion, see page 4-51 of the Final Environmental Impact Statement. For questions on specific properties, contact the Arizona Department of Transportation Right-of-Way Group at (602) 712-6922.
2	Alternatives	The Arizona Department of Transportation has designated the 59th Avenue connection (W59 Alternative) with Interstate 10 (Papago Freeway) as the Preferred Alternative for the proposed freeway in the Western Section of the Study Area. The project team considered the input of all stakeholders—including regional leaders, municipalities, members of the public, and members of the South Mountain Citizen's Advisory Team—before identifying the W59 Alternative as the Preferred Alternative (see pages 3-65 and 3-68 of the Final Environmental Impact Statement). The W59 Alternative was seen as the best option to balance fiscal responsibility, regional mobility needs, community sensitivity, and additional considerations such as consistency with long-range planning goals, economic and environmental impacts, and public and agency input. Precise areas of impacts would be determined as the project design progresses, if an action alternative were to be the Selected Alternative. The Arizona Department of Transportation has met with the Salt River Pima-Maricopa Indian Community to discuss its concerns, and these meetings would continue.

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	as an impacted stakeholder, on the specific land acquisition along 59th Avenue for the W59 Alternative to better understand the direct impacts to our business. Based on the information we have to date, we are not opposed to the W59 Alternative as long as we are given the opportunity to consult with you about this preferred route and consider options, including whether a soil cement berm in the river bed could allow us to salvage a portion of our operations. Second, the Community supports the W71 Alternative as our most favored route. Due to the potential impact the W59 may have on the operations of PCC we believe this route to be more suitable while still providing a viable option for a southern corridor. Third, the Community would support the W101 Alternative Route as our second choice. These brief comments are intended to give the general position of the Salt River Pima-Maricopa Indian Community during this 90-day public comment period to review the Draft EIS of the Loop 202 South Mountain Freeway Study and we look forward to working with you to achieve a mutually beneficial solution. Sincerely,  Diane Enos President

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STATE AGENCY AND ELECTED OFFICIALS COMMENTS AND RESPONSES

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	 THE STATE OF ARIZONA GAME AND FISH DEPARTMENT 5000 W. CAREFREE HIGHWAY PHOENIX, AZ 85086-5000 (602) 942-3000 • WWW.AZGFD.GOV GOVERNOR JANICE K. BREWER COMMISSIONERS VICE CHAIRMAN, J.W. HARRIS, TUCSON ROBERT E. MANSELL, WINSLOW KURT R. DAVIS, PHOENIX EDWARD "PAT" MADDEN, FLAGSTAFF DIRECTOR LARRY D. VOYLES DEPUTY DIRECTOR TY E. GRAY  July 24, 2013 South Mountain Study Team Arizona Department of Transportation 1655 West Jackson Street, MD 126F Phoenix, Arizona 85007 RE: South Mountain (Loop 202) Freeway Draft Environmental Impact Statement Dear Study Team, 1 The Arizona Game and Fish Department (Department) has reviewed the Draft Environmental Impact Statement (DEIS) for the South Mountain Freeway (Loop 202) and Section 4(f) Evaluation. The Department continues to understand the need for such a project with the continued growth occurring in our state and within Maricopa County, facilitating the need for more and/or modified infrastructure. The Department was involved in the initial stages of the process and periodically consulted over the years as concerns and/or questions arose. The Department appreciates the opportunity to review the DEIS and would like to coordinate further as the project progresses. If executed appropriately, we believe this project has the potential to be an opportunity to restore rather than threaten ecological viability. Achieving such an objective will require substantial additions to mitigation requirements, but these additions would generate support for a project with such heightened public interest. We provide the following general comments for consideration with page specific comments on the DEIS in the attachment. 2 Background The Desert Spaces: An Open Space Plan (Plan) for the Maricopa Association of Governments includes South Mountain as “providing local identity and for wildlife relief from urban development patterns”. The general policies include: conserving mountainous areas containing important wildlife habitats through implementation of various open space protection tools. South Mountain was identified in the plan as a retention area. The policies related to retention areas include: allowance of development that retains the integrity of and public access to regionally and locally significant natural features, wildlife habitats, etc.; ensuring that protection of resources is integral to the project and low impact construction technology is utilized from initiation through site restoration. Included was the recognition that all native animal species are essential components of healthy ecosystems, and a directive to conserve existing habitat, recreate it where destroyed, and provide new habitat where appropriate. The Sierra Estrella Mountains AN EQUAL OPPORTUNITY REASONABLE ACCOMMODATIONS AGENCY

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1	Biology, Plants, and Wildlife	As noted on page 4-1 of the Final Environmental Impact Statement, during the design stage of project development, changes in regulatory requirements may occur or changes to previously assessed resource impacts could be discovered that would require modifications to mitigation. Final commitment to mitigation measures would be made in a record of decision and would include the commitment for the Arizona Department of Transportation and Federal Highway Administration to continue to coordinate with the Arizona Game and Fish Department during the design phase to develop appropriate measures to mitigate potential impacts related to the project; however, any additional efforts would be beyond the scope of the National Environmental Policy Act.
2	Biology, Plants, and Wildlife	The proposed freeway is consistent with maps included in the referenced Maricopa Association of Governments <i>Desert Spaces: An Open Space Plan for the Maricopa Association of Governments</i> and with regional planning efforts, as discussed in Chapter 5 of the Final Environmental Impact Statement (see Phoenix South Mountain Park/Preserve section beginning on page 5-14 of the Final Environmental Impact Statement). We perceive the comment to mean that the project does not conform to the goals stated in the Maricopa Association of Governments <i>Desert Spaces: An Open Space Plan for the Maricopa Association of Governments</i>, such as the use of low-impact construction technology in the South Mountains area and maintaining wildlife connectivity across the network of identified open spaces. The Arizona Game and Fish Department requests that additional mitigation considerations be given to habitat loss and/or degradation resulting from the project. It is also important to understand that the City of Phoenix planning efforts since the mid-1980s illustrate an awareness of the potential for the proposed South Mountain Freeway to affect Phoenix South Mountain Park/Preserve. In 1989, the South Mountain Park Master Plan was adopted by the Phoenix City Council. The master plan shows the freeway alignment as adopted by the State Transportation Board in 1988. In 1990, the South Mountain Preserve Act was ratified by the Arizona Legislature. The Act did not apply to roadways through a designated mountain preserve if the roadway was in the State Highway System prior to August 15, 1990. The proposed South Mountain Freeway was in the State Highway System prior to 1990. Records prior to the Act suggest a primary reason for the exception was to allow the proposed freeway to go through Phoenix South Mountain Park/Preserve (see Final Environmental Impact Statement page 5-14). The project team examined alternatives to avoid the Phoenix South Mountain Park/ Preserve, but did not identify any feasible and prudent alternatives to avoid the use of the park. The portion of the park that would be used for the proposed freeway would be 31.3 acres, or approximately 0.2 percent of the park’s approximately 16,600 acres (see Final Environmental Impact Statement pages S-38 and 5-31). The Arizona Department of Transportation continues to work with park stakeholders to minimize use of park resources. The <i>Measures to Minimize Harm</i> section beginning on page 5-23 of the Final Environmental Impact Statement includes measures addressing concerns raised in the comment. The Arizona Department of Transportation and Federal Highway Administration would continue to work with partners including the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and the Gila River Indian Community’s Department of Environmental Quality, during the design phase to continue to develop these measures (including the provision of replacement lands and the design of multifunctional crossings that would allow wildlife passage across the proposed freeway alignment at natural drainages and that would allow Gila River Indian Community members to gain access to important traditional locations within the South Mountains). Given these considerations, the proposed freeway is consistent with regional planning efforts.

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	South Mountain DEIS July 24, 2013 2 were identified as conservation areas within the Plan. The policies associated with those areas consider species diversity and states that overall populations of wildlife should not be reduced. If connections from South Mountain to the Sierra Estrella Mountains are cut off, populations would be impacted. In addition, a number of drainage features coming off South Mountain serve as wildlife corridors. Washes are identified in the plan with policies to include: development of roads and utility corridors parallel to but not in the washes. Community buffer zones are addressed with policies including: protection of lands containing natural resources, nearly pristine desert vegetation, agricultural land and wildlife habitat that lie between rural communities, unincorporated areas and expanding urbanizing areas. South Mountain provides a good example of where this is occurring with the Gila River Indian Community lands (GRIC), agriculture to the south and urbanization to the north and east. The agriculture use on GRIC lands and desert vegetation on the west/north side of the mountain provide vital components for wildlife. Benefits of regional planning that were identified included interconnected systems and wildlife corridors; thus avoiding preserved islands of habitat and low biodiversity. The proposed freeway is not consistent with this regional planning effort. Additional mitigation considerations should be given to habitat loss/degradation resulting from the project. Wildlife and Connectivity South Mountain and the surrounding study area contain a diversity of species (please refer to the extensive lists in the attachments) likely to include, but not limited to: Harris’s hawk, northern harrier, peregrine falcon, bald eagle, western burrowing owl, Gambel’s quail, greater road runner, black-tailed jackrabbit, javelina, mule deer, desert bighorn sheep, coyote, gray fox, badger, bobcat, mountain lion, western yellow bat, western red bat, Sonoran desert toad, Sonoran Desert Tortoise, Gila monster, desert iguana, chuckwalla, Sonoran Whipsnake, western lyresnake, Tucson shovel-nosed snake, tiger, black-tailed and western diamond-backed rattlesnakes. South Mountain in particular contains one of the largest known populations of chuckwallas in the state. The DEIS addressed special status species: desert tortoise, bald eagle, Yuma clapper rail, Tucson shovel-nosed snake and others. We recommend inclusion of the Species of Greatest Conservation Need (SGCN) (see attachment) along with preserving connectivity to the Sierra Estrella Mountains in order to preserve biodiversity on South Mountain. The Department is primarily concerned with wildlife connectivity opportunities between South Mountain and the Sierra Estrella Mountains, and maintaining and enhancing the crossing at the Salt River. These wildlife linkages have been identified within the 2006 Statewide Linkages Assessment and the Maricopa County Stakeholders Assessment 2012. The recommended E1 eastern alignment would cut-off the movement corridors between South Mountain and the Sierra Estrella Mountains, impacting the long-term diversity on South Mountain. This alternative would cut through the mountain across two ridgelines. This may create an island effect as the project area is the last remaining connection for wildlife to move between South Mountain park and GRIC, agricultural lands and ultimately the Sierra Estrella Mountains. The western portions of

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3	Biology, Plants, and Wildlife	The section, <i>General Impacts on Vegetation, Wildlife, and Wildlife Habitat</i>, beginning on page 4-136 of the Final Environmental Impact Statement, respectively, discloses the effects of the proposed action and its alternatives on vegetation, wildlife, and wildlife habitat. The conclusion for diminished wildlife resources accounts for general effects that would also apply to species of greatest conservation need. Those species of greatest conservation need that have the potential to occur in the Study Area have been added to Table 4-43 that begins on page 4-129 of the Final Environmental Impact Statement. These species were also addressed in a Biological Evaluation that was submitted to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and Gila River Indian Community Department of Environmental Quality. The U.S. Fish and Wildlife Service concurred with the species determinations in the Biological Evaluation (see Appendix 1-1 of the Final Environmental Impact Statement). Connectivity is planned to allow wildlife movement beneath the freeway in multiuse crossings (see page 4-137 of the Final Environmental Impact Statement). The Federal Highway Administration and Arizona Department of Transportation have committed to providing mitigation by including multifunctional crossing structures designed for wildlife and for limited human use, potential fencing to guide wildlife to the crossing structures, and culverts designed for connectivity for smaller species. Wildlife-friendly design information would be considered during the design of drainage and crossing structures for the freeway (see <i>Mitigation</i>, beginning on page 4-138 of the Final Environmental Impact Statement).
4	Biology, Plants, and Wildlife	Connectivity is planned to allow wildlife movement beneath the freeway. This is described in the text box, “<i>Habitat Connectivity and the Proposed Action</i>,” on page 4-125 and in the section, <i>Habitat Connectivity</i>, on page 4-137 of the Final Environmental Impact Statement. Crossing structures are planned along major movement corridors (see Figure 4-38, on page 4-126, and the discussion on page 4-137 of the Final Environmental Impact Statement) and would maintain connectivity between the South Mountains and the Sierra Estrella. The comments on the Draft Environmental Impact Statement contradict previous communication with the Arizona Game and Fish Department for the project. The last formal communication received from the Arizona Game and Fish Department in 2006 (see page A139 in Appendix 1-1 of the Final Environmental Impact Statement) stated that the movement corridor between the South Mountains and the Sierra Estrella is degraded by the 51st Avenue travel corridor as well as by planned development in that area. Data presented in the Draft and Final Environmental Impact Statements corroborate this statement (see the sidebar, “<i>Existing versus planned land use</i>,” on page 4-3 of both documents); a large percentage of the land in the Study Area is projected to be converted to nonagricultural uses in the foreseeable future. The above-referenced 2006 letter from the Arizona Game and Fish Department also stated that mule deer are believed to have been extirpated from the area. There was no mention of concerns regarding bighorn sheep. The Federal Highway Administration and Arizona Department of Transportation have committed to providing mitigation by including multifunctional crossing structures designed for wildlife such as mule deer and for limited human use, potential fencing to guide wildlife to the crossing structures, and culverts designed for connectivity for smaller species.

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	South Mountain DEIS July 24, 2013 3 South Mountain are mostly undisturbed as opposed to the eastern portions and provide habitat for larger species like mule deer and bighorn sheep. Bighorn sheep are historic to this area and are currently found in the adjacent Sierra Estrella Mountains. This is a potential opportunity where the project could actually restore diversity by taking measures to preserve and improve connectivity between these mountain ranges, promoting mule deer movement and helping return bighorn sheep to historic habitat and providing watchable wildlife opportunities that would have tremendous support from the viewing public. The DEIS presents plans for multi-functional crossings using underpasses; however, “multi-functional” crossings fail to facilitate movement for many wildlife species. Previous (Arizona State Route 68, ADOT SPR588: http://www.azdot.gov/TPD/ATRC/publications/project_reports/PDF/AZ588.pdf) and current studies (U.S. Highway 93, Twin Peaks) on Arizona highways show that high human use of underpasses inhibit the realization of intended wildlife connectivity and permeability. A 2011 study in the Netherlands had limited success with overpasses designed specifically with segregated pedestrian and wildlife channels. However there was clear indication that human use was inhibiting wildlife utilization of monitored overpasses and significantly impacting behavior of target species. The Department supports placing crossing underpasses in the drainage areas (washes, etc.) for facilitating movement for wildlife only, not constructing multi-use crossings. Underpasses may accommodate a diversity of species; however, allowing or promoting human, equestrian, and/or OHV use would severely limit wildlife connectivity. The crossings (and crossing approaches) for hiking, equestrian, and mountain bicyclists should be located in a different area or separated from the wildlife crossing and crossing approach areas. The Department recommends overpasses where the proposed alignment intersects the major ridgelines of South Mountain to allow for movement of larger game and other species, while decreasing risk to public safety. Overpasses are proving to be successful in moving larger species, as documented in the US Highway 93 study. Single span bridges have been shown to improve connectivity for deer in Arizona (SR 260: http://ntl.bts.gov/lib/46000/46600/46644/AZ603.pdf), but fall short of mitigating the fragmentation effects that roads have on the deer. Underpasses improved the deer passage rate on SR 260 from 3% to 16%, but 84% of crossing attempts remained unsuccessful. Bighorn sheep have been documented using underpasses opportunistically, but again they do not alleviate the barrier effects of roads on bighorn sheep. . On SR 68, 20 months of monitoring 3 underpasses revealed only 32 bighorn sheep ram crossings (none by ewes or lambs). Over 1200 crossings by rams, ewes, and lambs were documented on the US 93 overpasses during a similar 20 month period. Such functionality falls far short of movement requirements to maintain viable bighorn sheep and mule deer populations in the South Mountain area. Overpasses in Arizona have been shown to pass large numbers of bighorn sheep and deer, along with other species, safely across highways thereby maintaining a permeable landscape.

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5	Biology, Plants, and Wildlife	The intended uses of the multifunctional crossings would vary by location within the Study Area. If the crossings were near existing recreational features or trails, more human use would be expected. However, multifunctional crossings in remote areas through the South Mountains would allow limited use by people. Use of the crossings by people in this area is proposed solely to accommodate those members of the Gila River Indian Community who wish to gain access to areas of the South Mountains for ceremonies important for their culture (see Final Environmental Impact Statement page 4-151). A right-of-way fence would limit access to these areas by freeway users, but would allow Gila River Indian Community members to gain access to the area (see page 5-27 of the Final Environmental Impact Statement). The underpasses would not be associated with trailheads into the park and would not be designated as such for pedestrian, equestrian, off-highway vehicle, or bicyclist use. Other use of the underpasses by humans would be neither actively promoted nor encouraged through the signs posted. The Federal Highway Administration and Arizona Department of Transportation have committed to providing mitigation by including multifunctional crossing structures designed for wildlife such as mule deer and for limited human use, potential fencing to guide wildlife to the crossing structures, and culverts designed for connectivity for smaller species (see <i>Mitigation</i>, beginning on page 4-138 of the Final Environmental Impact Statement).
6	Biology, Plants, and Wildlife	Wildlife connectivity across the proposed project corridor is a concern, and multifunctional crossing structures are planned at locations where natural movement corridors occur along major drainages. The U.S. Route 93 study area is not similar to the South Mountains in that the undeveloped land along U.S. Route 93 provided habitat for an existing population of large mammals. For the U.S. Route 93 project, the largest remaining population of desert bighorn sheep in the Southwest occurred in the area and would have been adversely affected by the highway unless mitigation measures were in place. In that instance, the overpass mitigation was in direct response to a known large mammal population that would be adversely affected. The mitigation was justified in terms of the degree of impact that would have resulted from the highway’s construction and operation. In the case of the South Mountains, communication from the Arizona Game and Fish Department in 2006 (see page A139 in Appendix 1-1 of the Final Environmental Impact Statement) states that mule deer are believed to have been extirpated from the area; bighorn sheep are not mentioned and are known to not occur in Phoenix South Mountain Park/Preserve. Further, historic habitat has already been adversely affected in the area; therefore, the current state of habitat limits the baseline condition under consideration. The Federal Highway Administration and Arizona Department of Transportation have committed to providing mitigation by including multifunctional crossing structures designed for wildlife such as mule deer and for limited human use, potential fencing to guide wildlife to the crossing structures, and culverts designed for connectivity for smaller species (see <i>Mitigation</i>, beginning on page 4-138 of the Final Environmental Impact Statement).

Code	Comment Document
	South Mountain DEIS July 24, 2013 4 7 General Recommendations The Department recommends research and monitoring of wildlife movement within the study area to provide the information necessary to inform the design of crossings, bridges, culverts and fencing. Research may include but not be limited to telemetry and big game/tortoise/bats/snake surveys. For example, mule deer are known to occur in the area and survey/movement information would be important before designing any crossing structures. Mitigation should include survey costs. Mitigation should also consider wildlife specific fencing, culvert, vegetation and crossing structure design, loss of water sources in and adjacent to the project, direct habitat loss and roadway grading. 8 Funnel fencing is a critical component of successful wildlife crossings and the Department strongly recommends it be applied in conjunction with all wildlife crossing structures designed as mitigation. In the absence of funnel fencing research has shown wildlife will continue to cross the roadway at grade. Fencing is generally placed to compliment natural topographic features and encourage wildlife to move through a crossing structure and to prevent entrapment along medians. Escape mechanisms (such as fencing that leads to a slope and allows an animal to jump down but not up) are often used to compliment funnel fencing objectives and prevent roadway entrapment. Funnel fences turn the target animals along the fence before they can be repelled by traffic, preventing collisions, and directing them to crossing structures where they can safely continue in the desired direction. The keys to improved or successful fencing are extending far enough along the road corridor to capture all target species without creating an end-run effect, having enough crossings interspersed to minimize breach attempts; having tall enough fences to prevent scaling or jumping, and small enough webbing to deter ingress by smaller target species. Fencing extents are best derived from empirical target species movement data. When such data is missing, fencing the full extent of the highway is an acceptable alternative as long as sufficient passage structures, less than 1.5 miles apart, are included in the comprehensive mitigation plan. Further information on specific fencing for species can be found on the attachment. For culverts, the Department recommends avoiding long, dark and narrow pipes and culverts, as they may discourage species from entering. Utilize straight culverts through which approaching animals can see light. Avoid turns and curves in culvert layout. For longer culverts, use vertical pipes or slotted drains to illuminate the interior of the culvert. Avoid extreme slopes as they prevent effective movement; maintain 5-10% slopes for multiple species. Design all drainage structures to maintain a natural substrate. Avoid rip-rap as it would prevent or discourage entrance into the culvert for many species. If an energy dissipation structure is necessary, a flatter side ramp could be constructed to facilitate movement. Measures should be taken to make drainage structures as short as possible, if necessary cut the slopes closer to the roadway and use guard rails.

Code	Issue	Response
7	Biology, Plants, and Wildlife	We do not dispute the potential benefit of conducting a “multi-year” study to locate wildlife mitigation measures. However, it is also important to recognize that such studies need to be conducted in areas exhibiting priority wildlife-related highway safety and connectivity issues; the section of the highway corridor proposed parallel to Pecos Road was not identified as a linkage zone within the 2006 Arizona Wildlife Linkages Assessment or the 2012 Maricopa County Wildlife Connectivity Assessment. It would likely exhibit relatively low wildlife-vehicle collision incidence in the future given the low wildlife densities found within this portion of the corridor. The 2012 Maricopa County Wildlife Connectivity Assessment did identify a movement corridor at the southwestern end of Phoenix South Mountain Park/Preserve. Multifunctional crossing structures proposed in this area would allow continued wildlife connectivity in this area. Wildlife species in the Study Area (including mule deer, mountain lion, and javelina) are commonly found in the urban interface. They are generally not reluctant to use structures crossing beneath roadways; this is partially attributable to the fact that the most common times of use for humans and wildlife tend to occur at different times of the day. The proposed crossings would be located at washes, which are the most likely wildlife movement corridors given topography and resources. In addition to these larger crossings, culverts at smaller washes would serve as connection points for smaller wildlife. Culverts would generally be placed in natural drainage areas that are not heavily used by humans. Some past research indicates that human use of wildlife passages may affect wildlife use to varying degrees. The most well-known example of this research focused on crossings of the Trans-Canada Highway in Banff National Park. The results of the extensive research on the Trans-Canada Highway did not show that human use has a dramatic impact on wildlife use of the Banff structures, which has been substantial and continues to increase. In Arizona, research by the Arizona Game and Fish Department along State Route 260 found highly compatible use of a dual-use (multifunctional) underpass that linked the communities of Christopher Creek and Hunter Creek. This particular underpass exhibited some of the most diverse and substantial wildlife use of the underpasses monitored during the long-term project (Dodd et al. 2012). Along State Route 77, a Wildlife Technical Advisory Committee closely scrutinized this issue for the two planned wildlife passages that will be built within a similar urban-influenced landscape in and adjacent to Oro Valley. The Wildlife Technical Advisory Committee evaluated all available information and determined that the temporal patterns of human (daytime) versus wildlife (crepuscular and nocturnal) use are not expected to result in a significant degree of incompatibility. Furthermore, such dual-use, multifunctional structures situated within urban-influenced landscapes, in this instance adjacent to Phoenix South Mountain Park/Preserve with its extensive trail network, offer effective and efficient use of limited taxpayer funds.
8	Biology, Plants, and Wildlife	Specific design features of the proposed action would be established during the final design process. The Federal Highway Administration and Arizona Department of Transportation have committed to providing mitigation by including multifunctional crossing structures designed for wildlife such as mule deer and for limited human use, potential fencing to guide wildlife to the crossing structures, and culverts designed for connectivity for smaller species. Wildlife-friendly design information would be considered during the design of drainage and crossing structures for the freeway (see <i>Mitigation</i>, beginning on page 4-138 of the Final Environmental Impact Statement).

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9	Biology, Plants, and Wildlife	The Federal Highway Administration and Arizona Department of Transportation have committed to continue coordination with the Arizona Game and Fish Department, Gila River Indian Community Department of Environmental Quality, and U.S. Fish and Wildlife Service regarding wildlife concerns as a result of the freeway’s potential implementation. Wildlife-friendly design information would be considered during the design of drainage and crossing structures for the freeway (see <i>Mitigation</i> , beginning on page 4-138 of the Final Environmental Impact Statement).

Code	Comment Document
10	South Mountain DEIS July 24, 2013 5 In Closing The Department appreciates the opportunity to provide comment on the DEIS. We look forward to working closely with the project team for further discussion on comprehensive mitigation and design plans for the structures necessary to facilitate connectivity and permeability for wildlife. If you have questions about this letter, please contact Kelly Wolff-Krauter @ 480-324-3550 or kwolff-krauter@azgfd.gov. Sincerely,  Joyce Francis Habitat Branch Chief Cc: Rod Lucas, Regional Supervisor Laura Canaca, Project Evaluation Program Supervisor Ray Schweinsburg, Wildlife Contract Research Supervisor Clifton Meek, US EPA M13-04265313

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Attachment
South Mountain (Loop 202)
July 11, 2013

General

We recommend consideration be provided for the “Arizona’s Species of Greatest Conservation Need (SGCN)” (see below table). These species have historic, present, or potential distributions within the project area. The SGCN are species that the State has identified as most in need of conservation actions in Arizona’s State Wildlife Action Plan: 2012-2022 (SWAP), and those that are indicative of the diversity and health of the State’s wildlife (AGFD 2012). Many of these species are currently listed as Threatened or Endangered under the ESA, and many have low and declining populations. We recommend consideration of the SWAP as part of the DEIS and analysis. Additional information related to the stressors affecting wildlife, conservation actions, and each SGCN vulnerability ratings can be found in the plan. Please refer to the SWAP document for additional information.

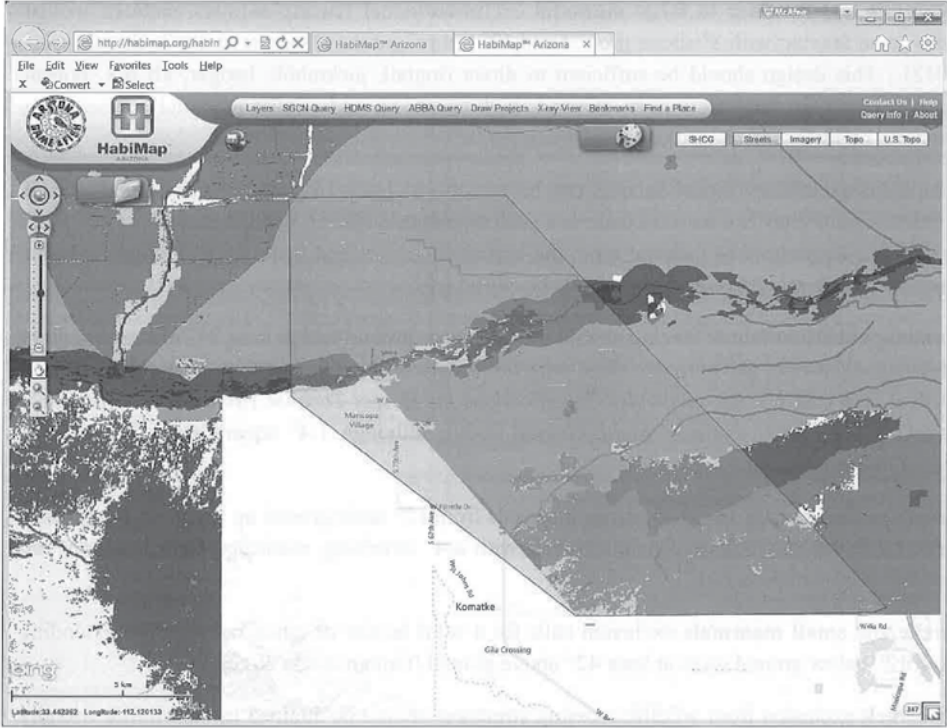
The Department’s newest tool, the HabiMap (http://www.azgfd.gov/w_c/WildlifePlanning.shtml) is intended to display the spatial components of the SWAP and can be used to view the potential habitat distributions of SGCN, as well as economically important game species, and information from Arizona’s Breeding Bird Atlas. Within HabiMap you can also view the Species and Habitat Conservation Guide (SHCG) (see below screenshot of project area). The guide can be used to visually explore how wildlife is distributed throughout the State and where conservation can have the greatest impact. Areas categorized 5 and 6, as areas of the “highest conservation potential” (darker blue); mean the importance of the landscape for maintaining biodiversity is highest at the statewide scale.

Abert's Towhee	Melozone aberti	1b
American Beaver	Castor canadensis	1b
American Bittern	Botaurus lentiginosus	1b
American Peregrine Falcon	Falco peregrinus anatum	1a
Antelope Jackrabbbit	Lepus alleni	1b
Arizona Bell's Vireo	Vireo bellii arizonae	1b
Arizona Myotis	Myotis occultus	1b
Arizona Pocket Mouse	Perognathus amplus	1b
Bald Eagle	Haliaeetus leucocephalus	1a
Banner-tailed Kangaroo Rat	Dipodomys spectabilis	1b
California Leaf-nosed Bat	Macrotus californicus	1b
Cave Myotis	Myotis velifer	1b
Ferruginous Hawk	Buteo regalis	1b
Gila Monster	Heloderma suspectum	1a
Gila Woodpecker	Melanerpes uropygialis	1b
Gilded Flicker	Colaptes chrysoides	1b
Golden Eagle	Aquila chrysaetos	1b
Goode's Horned Lizard	Phrynosoma goodei	1b
Greater Western Mastiff Bat	Eumops perotis californicus	1b
Harris' Antelope Squirrel	Ammospermophilus harrisi	1b
Jaguar	Panthera onca	1a
Kit Fox	Vulpes macrotis	1b
Le Conte's Thrasher	Toxostoma lecontei	1b
Lesser Long-nosed Bat	Leptonycteris yerbabuenae	1a

Code	Issue	Response
12	Biology, Plants, and Wildlife	The section, <i>General Impacts on Vegetation, Wildlife, and Wildlife Habitat</i>, beginning on page 4-136 of the Final Environmental Impact Statement, explains that the project would result in a decrease in resources for species that occur in and adjacent to the Study Area. It also describes additional short-term impacts related to construction. The analysis generally describes the effects on species of greatest conservation need that may occur in the vicinity. Most of the Study Area has a moderate-to-low value for species of greatest conservation need on HabiMap, including the western end of the South Mountains. The exception is the area along the Salt River corridor, where there are higher values for riparian species. The project is designed with a bridge over the Salt River to minimize effects on riparian habitat. Those species of greatest conservation need that have the potential to occur in the Study Area have been added to Table 4-43 that begins on page 4-129 of the Final Environmental Impact Statement. These species were also addressed in a Biological Evaluation that was submitted to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and Gila River Indian Community’s Department of Environmental Quality. The U.S. Fish and Wildlife Service concurred with the species determinations in the Biological Evaluation (see Appendix 1-1 of the Final Environmental Impact Statement).

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12	Attachment South Mountain (Loop 202)	
	July 11, 2013	
	Lincoln's Sparrow	Melospiza lincolni 1b
	Lowland Leopard Frog	Rana yavapaiensis 1a
	Mexican Free-tailed Bat	Tadarida brasiliensis 1b
	Pacific Wren	Troglodytes pacificu 1b
	Pale Townsend's Big-eared Bat	Corynorhinus townsendii pallescens 1b
	Pocketed Free-tailed Bat	Nyctinomops femorosaccus 1b
	Regal Horned Lizard	Phrynosoma solare 1b
	Sonora Mud Turtle	Kinosternon sonoriense sonoriense 1b
	Saddled Leaf-nosed Snake	Phyllorhynchus browni 1b
	Savannah Sparrow	Passerculus sandwichensis 1b
	Sonoran Coralsnake	Micruroides euryxanthus 1b
	Sonoran Desert Toad	Bufo alvarius 1b
	Sonoran Desert Tortoise	Gopherus agassizii 1a
	Sonoran Whipsnake	Masticophis bilineatus 1b
	Spotted Bat	Euderma maculatum 1b
	Tiger Rattlesnake	Crotalus tigris 1b
	Tucson Shovel-nosed Snake	Chionactis occipitalis klauberi 1a
	Variable Sandsnake	Chilomeniscus stramineus 1b
	Western Burrowing Owl	Athene cunicularia hypugaea 1b
	Western Red Bat	Lasiurus blossevillii 1b
	Western Yellow Bat	Lasiurus xanthinus 1b
	Wood Duck	Aix sponsa 1b
	Yellow Warbler	Dendroica petechia 1b
	Yuma Clapper Rail	Rallus longirostris yumanensis 1a
	Yuma Myotis	Myotis yumanensis 1b

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12	Attachment South Mountain (Loop 202) July 11, 2013  Barriers and Fencing The only viable wildlife option for a road with a projected Average Annual Daily Traffic (AADT) volume exceeding 10,000 is to prevent wildlife access to the corridor while maintaining permeability across it, and the DEIS suggests that the AADT for the proposed highway is expected to surpass 50,000 by the year 2035. This means exclusion fencing with crossing structures interspersed at appropriate intervals. While the specifications required to achieve such mitigation are not as numerous and varied as the full range of species present, there are different mitigation components and/or characteristics that are vital for success with different clades or taxa of wildlife species. Given the potential for intentional vehicle-reptile collisions (Ashley <i>et al</i> 2007) and the looming potential of Tucson shovel-nosed snake and Sonoran Desert tortoise Federal status upgrades to Threatened or Endangered, snake and tortoise mitigations should be given a high priority by the design team. Incorporating appropriate connectivity mitigation would preclude the need for redesign if/when these candidate species are listed. Fence/Barrier Design Requirements for various taxa
13	

Code	Issue	Response
13	Biology, Plants, and Wildlife	As noted on page 4-138 of the Final Environmental Impact Statement, during the design phase, if an action alternative were to become the Selected Alternative, the threatened and endangered species list would be reviewed to determine whether an update to address species would be needed. The wildlife connectivity is recognized (see “Habitat Connectivity and the Proposed Action” text box and <i>Habitat Connectivity</i> section on page 4-137 as well as the <i>Mitigation</i> section beginning on page 4-138 of the Final Environmental Impact Statement). The Federal Highway Administration and Arizona Department of Transportation have committed to providing mitigation by including multifunctional crossing structures designed for wildlife and for limited human use, potential fencing to guide wildlife to the crossing structures, and culverts designed for connectivity for smaller species. Wildlife-friendly design information would be considered during the design of drainage and crossing structures for the freeway (see <i>Mitigation</i>, beginning on page 4-138 of the Final Environmental Impact Statement). The Sonoran desert tortoise and Tucson shovel-nosed snake were analyzed in the Biological Evaluation and coordination on mitigation of impacts would occur during the design phase. Discussion of the Tucson shovel-nosed snake is included on page 4-135 in the Final Environmental Impact Statement.

Code	Comment Document
	Attachment South Mountain (Loop 202) July 11, 2013 Ungulate and medium to large mammal exclusion/funnel fencing requires standard woven-wire game fencing with 8’ above ground and 12” below ground (Dodd <i>et al</i> 2007, Grandmaison 2012). This design should be sufficient to direct ringtail, jackrabbit, badger, kit fox, bobcat, coyote, mountain lion, mule deer, javelina, bighorn sheep, and similar mammal species away from the highway and toward crossing structures. Amphibian exclusion/funnel barriers can be fine mesh (1/4”) 16-guage or heavier galvanized, welded wire, or they can be solid materials such as concrete barrier, rusticated steel, or guard rail materials. Regardless of material type, the barrier should extend from 12” below ground to at least 36” above ground (Grandmaison 2012). Tortoise exclusion/funnel fencing should be 12” below ground and at least 24” above ground of 16-guage or heavier galvanized welded wire mesh with holes no larger than 1” horizontal by 2” vertical (see USFWS <i>Recommended Specifications for Desert Tortoise Exclusion Fencing</i> 2005 and USFWS <i>Desert Tortoise Field Manual</i> 2009), although 1/4” square mesh is preferred (Grandmaison 2012). Lizard exclusion calls for solid barrier materials from 12” underground up to 42” above ground. Acceptable designs include concrete barrier with a 4” overhang, rusticated steel, or guard rail material (Grandmaison 2012). Snake and small mammals exclusion calls for a solid barrier of guard rail material extending from 12” below ground up to at least 42” above ground (Grandmaison 2012). Livestock exclusion from wildlife crossing structures should be attained using wildlife friendly right-of-way (ROW) fencing (http://www.azgfd.gov/hgis/pdfs/FencingGuidelines.pdf). This should be set back at least 50 yards from the entrance to the crossing structure and comprised of 3 or 4 wire strands with a total height of no more than 42”. The bottom strand should be smooth wire between 16” and 20” off the ground. There should be one or two barbed wire strands above the bottom wire with 5” to 8” separating each of these strands. The top wire should be smooth with at least 12” between in and the next highest strand, but not more than 42” above the ground. PVC-pipe “jumps” should be installed across the top and bottom strands of these fences to promote wildlife crossings. Due to anticipated traffic volume, no ROW fence should be constructed with the intention of encouraging wildlife ingress into the freeway corridor. Any sections of freeway where wildlife barriers are deemed unnecessary (movement data shows avoidance by all target species) but livestock are present should be fenced according to standard ADOT ROW fence specifications (not wildlife-friendly game fence). Combination and extent of Fence/Barrier Designs Effective mitigation must combine the most restrictive funnel fence/barrier requirements for all of the taxa present or potentially present in a given area. Barrier extents and spatial distribution of taxa-specific design characteristics should be derived from empirical resident target species

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Code	Issue	Response
14	Biology, Plants, and Wildlife	The need for maintaining wildlife connectivity is recognized (see “ <i>Habitat Connectivity and the Proposed Action</i> ” text box and <i>Habitat Connectivity</i> section on page 4-137 as well as the <i>Mitigation</i> section beginning on page 4-138 of the Final Environmental Impact Statement). The Federal Highway Administration and Arizona Department of Transportation have committed to providing mitigation by including multifunctional crossing structures designed for wildlife and for limited human use, potential fencing to guide wildlife to the crossing structures, and culverts designed for connectivity for smaller species. Wildlife-friendly design information would be considered during the design of drainage and crossing structures for the freeway (see <i>Mitigation</i> , beginning on page 4-138 of the Final Environmental Impact Statement).

Code	Comment Document
15	Attachment South Mountain (Loop 202) July 11, 2013 movement data. Absent such data, the assumption must be that all local species exist across the full extent of the project area, regardless of habitat assessments or modeling output. Under this assumption, the new freeway corridor design should include guard rail barrier from 12” below ground to 42” above ground and woven-wire fence from the top of the guard rail barrier up to 96” that extends the length of the freeway and ties into crossing structures including the recommended overpasses, underpasses and culverts. If wildlife movement investigations of target species are included as mitigation, the resulting data can be used to reduce the required barrier design by eliminating/reducing stretches through avoided areas. Vegetation and Crossing Structure Design recommendations: To promote wildlife connectivity and achieve true mitigation of the freeway, crossing structures, culverts in partuclar, should be as large as possible. They should have natural native substrate floors with low stature vegetative cover at openings and natural lighting through as much of the structure as possible. Grated slots can boost ambient light in smaller culverts (Grandmaison 2012). Maintaining natural vegetation along the approach and exits of structures and natural substrates through culverts has demonstrated increased wildlife use. Vegetation provides wildlife with security cover (Grandmaison 2012). The Department recommends a non-clear cut approach to wash habitats during construction and post-construction restoration. Scouring is common on the downstream side of concrete or pipe culverts along washes. The changes in elevation from floodway bottom to culvert/pipe bottom often compromise wildlife access through the culverts/pipe. Tortoises have been shown to be particularly sensitive to this situation on Highway 87. The Department recommends design solutions that prevent scour and promote access and safe passage by small mammals, reptiles and amphibians. Wildlife Monitoring/Research: The Department recommends research on wildlife movement to optimize design and placement of crossing structures that fit the need of the local wildlife and their movement patterns and reduce impact to and address human health and safety issues. Evaluation of crossing structure utilization is critical to determine effectiveness and to identify any design modifications that would increase effectiveness. Such assessments also allow the determination of suitability as a future mitigation measure for additional roadway expansions and new projects. Information gained from evaluation should be used to help decide timing and future steps towards mitigating increasing levels of development and traffic volume in the planning area as it relates to managing connectivity for the long-term. There are several approaches that should be
16	

Code	Issue	Response
15	Biology, Plants, and Wildlife	The issue of wildlife connectivity is recognized (see “v” text box and <i>Habitat Connectivity</i> section on page 4-137 as well as the <i>Mitigation</i> section beginning on page 4-138 of the Final Environmental Impact Statement). The Federal Highway Administration and Arizona Department of Transportation have committed to providing mitigation by including multifunctional crossing structures designed for wildlife and for limited human use, potential fencing to guide wildlife to the crossing structures, and culverts designed for connectivity for smaller species. Wildlife-friendly design information would be considered during the design of drainage and crossing structures for the freeway.
16	Biology, Plants, and Wildlife	We do not dispute the potential benefit of conducting a “multi-year” study to locate wildlife mitigation measures. However, it is also important to recognize that such studies need to be conducted in areas exhibiting priority wildlife-related highway safety and connectivity issues. The section of the highway corridor where the multiuse crossings are proposed was not identified as a linkage zone within the 2006 Arizona Wildlife Linkages Assessment; however, it was identified as a movement corridor in the 2012 Maricopa County Wildlife Connectivity Assessment. Wildlife species in the Study Area (including mule deer, mountain lion, and javelina) are commonly found in the urban interface and are generally not reluctant to use structures crossing beneath roadways. This is partially attributable to the fact that the most common times of use for humans and wildlife tend to occur at different times of the day. The proposed crossings are located at washes, which are the most likely wildlife movement corridors given topography and resources. In addition to these larger crossings, culverts at smaller washes would serve as connection points for smaller wildlife. Culverts would generally be placed in natural drainage areas that are not heavily used by humans. Some past research indicates that human use of wildlife passages may affect wildlife use to varying degrees. The most well-known example of this research focused on crossings of the Trans-Canada Highway in Banff National Park. The results of the extensive research on the Trans-Canada Highway did not show that human use has a dramatic impact on wildlife use of the Banff structures, which has been substantial and continues to increase. In Arizona, research by the Arizona Game and Fish Department along State Route 260 found highly compatible use of a dual-use (multifunctional) underpass that linked the communities of Christopher Creek and Hunter Creek. This particular underpass exhibited some of the most diverse and substantial wildlife use of the underpasses monitored in the long-term project (Dodd et al. 2012). Along State Route 77, a Wildlife Technical Advisory Committee closely scrutinized this issue for the two planned wildlife passages that will be built within a similar urban-influenced landscape in and adjacent to Oro Valley. The Wildlife Technical Advisory Committee evaluated all available information and determined that the temporal patterns of human (daytime) versus wildlife (crepuscular and nocturnal) use are not expected to result in a significant degree of incompatibility. Furthermore, such dual-use, multifunctional structures situated within urban-influenced landscapes, in this instance adjacent to Phoenix South Mountain Park/ Preserve with its extensive trail network, offer effective and efficient use of limited taxpayer funds.

Code	Comment Document
	Attachment South Mountain (Loop 202) July 11, 2013 explored and partnerships should be developed to find the resources to accomplish this through shared commitments. Approaches to consider for citing and evaluation of mitigation components: ▪ Track, Scat and road-kill surveys to identify “hot spots” for mortality and vehicle collisions ▪ Wildlife movement studies (telemetry) to identify movement patterns ▪ Traffic Volume using traffic counters to examine the potential influence of traffic volume on wildlife movement and mortality across the parkway and in response to phase implementation of wildlife crossing structures ▪ Post-construction monitor of crossing structures using integrated digital video surveillance systems and digital trail cameras to evaluate success and/or need for adaptive management measures. Loss of Water Sources/Riparian Habitat (or access to them): Local wildlife is extremely dependent on stock tanks in the area as an ephemeral and/or semi-permanent source of water. If freeway construction would eliminate existing stock tanks or access to them, along the project alignment, we recommend replacement of in-kind values and redevelopment at the nearest alternate location. Currently, there is a not a comprehensive knowledge of water sources available to wildlife on GRIC lands adjacent to the project area. However, the agricultural land adjacent to the project area contains and/or produces water sources important to wildlife. For example, just south of Pecos Road there is a large agricultural field that feeds a riparian corridor utilized by a diverse array of species. Any loss of riparian habitat, including changes to the gravel pit ponds or other water sources within or around the Salt River, may impact the occupancy and productivity of the adjacent Pee Posh bald eagle breeding area. The Pee Posh breeding area has been highly successful with five nestlings fledged in the four years since its discovery in 2010. The only failure was due to a fire that consumed the two near-fledging age nestlings in 2011. Although the Pee Posh breeding area has been highly successful, foraging areas for the breeding birds have been very limited. Any anticipated loss to riparian/wetland habitats due to this project should be replaced. In addition, the Department recommends further consultation with the US Fish and Wildlife Service (USFWS) and AGFD over the potential for impacts to bald eagle productivity and the possible need for a Bald and Golden Eagle Protection Act permit with an associated impact reducing eagle conservation plan. Roadway Grading: Research suggests that road-kill of small terrestrial vertebrate species decreased by 93% on roads raised on embankments compared to roads at natural grades (Clevenger et al. 2003). This roadway design may be beneficial to small mammals, reptiles and amphibians throughout
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Code	Issue	Response
17	Biology, Plants, and Wildlife	No stock tanks have been identified near the action alternative corridors; therefore, none would be removed nor would access to stock tanks be affected by the proposed action. The Draft Environmental Impact Statement addressed the Pee Posh eagles, although not by name, on page 4-124. A Biological Evaluation was submitted to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and the Gila River Indian Community Department of Environmental Quality that addressed threatened and endangered species. The U.S. Fish and Wildlife Service concurred with the species determinations in the Biological Evaluation (see Appendix 1-1 of the Final Environmental Impact Statement). The Biological Evaluation also addressed the breeding eagles in the Pee Posh wetlands in conformance to the Bald and Golden Eagle Protection Act.
18	Biology, Plants, and Wildlife	As noted on page 3-41 of the Final Environmental Impact Statement, a rolling profile would be used for the proposed freeway. Page 3-47 of the Final Environmental Impact Statement shows the proposed profile for the E1 Alternative. The proposed profile would be elevated above the existing ground level throughout most of this section of the proposed project. A rolling profile is preferable economically for balancing construction cut and fill material. It provides operational benefits because it is the type of freeway drivers are familiar with and it also permits efficient drainage solutions, thereby reducing the amount of land needed. The Federal Highway Administration and Arizona Department of Transportation have committed to providing mitigation by including multifunctional crossing structures designed for wildlife such as mule deer and for limited human use, potential fencing to guide wildlife to the crossing structures, and culverts designed for connectivity for smaller species. Wildlife-friendly design information would be considered during the design of drainage and crossing structures for the freeway (see <i>Mitigation</i> , beginning on page 4-138 of the Final Environmental Impact Statement).

Code	Comment Document
	Attachment South Mountain (Loop 202) July 11, 2013 Rainbow Valley and through the Linkage Zone. Used in combination with wildlife friendly bridge and culvert designs, this design strategy may be an effective way to minimize impacts, while enhancing permeability. Page Specific Comments Chapter 4: Affected Environment, Environmental Consequences and Mitigation Page 4-14, 15 The Rio Salado Oeste project is one in a chain of major river restoration projects that would result in continuous riparian corridor that would connect riparian and wetland habitats downstream with similar areas upstream. This would also result in connectivity in habitats creating a synergism in habitat values and wildlife populations where each of the projects would add to the other. The Department strongly supported this concept of recycled or conserved water and the Rio Salado Oeste project within the larger context of these other projects and connectivity that would result from their implementation. Several of the other projects have been completed and/or are still in implementation. The Department would like to see any actions involving this project contribute to its progress rather than detract from the potential landscape level connectivity that could result. Effects of actions within this area should be minimized with the least invasive structures possible (large open span bridges carrying traffic far above the wildlife habitat in the riverbed below) and offset with contributions to the restoration of this area and connecting lands. Page 4-19 Conclusions The E1 Alternative was found to be incompatible with the natural land and primarily residential areas immediately north of the alignment. This conclusion seems contradictory and may require clarification. Page 4-112 Conclusions The E1 Alternative would alter the drainage patterns through use of a series of drainage detention basis directing runoff to community lands. It is not disclosed as to how this runoff would impact those adjacent lands.

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19	Biology, Plants, and Wildlife	As noted on page 4-15 of the Final Environmental Impact Statement, the City of Phoenix is aware of, has planned for, and has incorporated the proposed South Mountain Freeway in the City of Phoenix General Plan and in conceptual plans for the Rio Salado Oeste project (see Project Features Map in Appendix 4-8 of the Final Environmental Impact Statement). As noted on page 4-15 of the Final Environmental Impact Statement and as agreed upon by the Bureau of Land Management, U.S. Army Corps of Engineers, and City of Phoenix, the project team would continue to consult with those entities to coordinate design efforts with the Rio Salado Oeste project.
20	Biology, Plants, and Wildlife	As noted on page 4-16 of the Final Environmental Impact Statement, single-family residential uses were generally not considered compatible with transportation corridors because the action alternatives would introduce visual, air quality, noise, and other intensive impacts on a comparatively sensitive land use; may isolate portions of planned communities; or may limit access to infrastructure and services. Undeveloped land near a transportation corridor was deemed compatible or incompatible largely based on its planned land use, determined by zoning and the jurisdiction’s adopted general plan.
21	Biology, Plants, and Wildlife	Drainage patterns would not be diverted from their downstream connection on the Gila River Indian Community. The drainage features of the E1 Alternative would be designed such that drainage basins and channels on the north side of the freeway would collect runoff from the freeway and allow suspended sediment to settle. As the system continues to receive runoff, the basins and channels would overflow into channels that would direct flows under the freeway and onto Gila River Indian Community land in the same location as existing drainages from the South Mountains (see page 4-106 of the Final Environmental Impact Statement).

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	Attachment South Mountain (Loop 202) Page 4-119 Aquatic/Wetland Communities Please cite literature that supports the claim that concrete-lined irrigation canals do not offer significant value to wildlife. Without empirical data and targeted research, this is not a sound assumption. Aquatic species (vertebrates and invertebrates) may inhabit the irrigation canals. They may also sustain insect populations that in turn support bird, bat, and other mammal populations. Bats and birds may also rely heavily on these canals as a water source. Wildlife Resources There is an underlying implication that wildlife diversity outside of SMPP is low due to the few observations of the project team. Incidental observations are a valid record of presence, but not of absence. Unless targeted surveys for various clades are undertaken, there should be no implication of low diversity. The Department recommends including the additional species mentioned in our letter above. In addition, clarification in use of the agricultural fields should include that they not only provide habitat, but also provide forage for larger game species, such as mule deer and habitat for predators such as coyotes. Please clarify the distinction between “riparian vegetation” in this Wildlife Resources section versus the “wetland vegetation” referenced in the Aquatic/Wetland Community section relative to the gravel pits in question. Page 4-120 The Department has more recent information on predators adjacent to the study area and recommends further discussion. As a point of clarification, the potential for mountain lions to occur within South Mountain is a factor of the potential for South Mountain to represent a portion of a mountain lion home range. It is unlikely that SMPP is large enough to alone sustain a mountain lion and so there are likely no resident lions that remain within the SMPP boundary. In addition, wild horses and burros occur on the GRIC lands adjacent to the study area. These animals would be of concern for potential wildlife collisions within the proposed freeway corridor. Table 4-44 Page 4-120 There is strong evidence that forage habitat critical to the success of a nearby bald eagle nest exists within the study area in close proximity to some action alternatives, including but not limited to the gravel operation ponds. Any alteration of this riparian forage habitat should be addressed appropriately as outlined above. Page 4-121

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22	Biology, Plants, and Wildlife	The concrete-lined irrigation canals in the Study Area are typically narrow and steep-sided and contain water for only short periods during field irrigation. The water velocity, steep sides, and short duration of water delivery in the concrete-lined canals do not constitute a reliable or appropriate water source for wildlife compared with unlined canals or standing water sources that may be available. The steep canal sides and velocities can be a danger to wildlife. This was clarified in the Final Environmental Impact Statement on page 4-127. We agree that a lack of observations does not equate to absence. The Draft Environmental Impact Statement lists numerous species and habitat types found in the Study Area and also states that wildlife abundance and diversity are related to the extent and variety of habitats in the area, implying that habitat variability in the area outside of Phoenix South Mountain Park/Preserve could support species diversity. The list of species was expanded in the Final Environmental Impact Statement and text was added to reflect that agricultural fields provide habitat for additional species (see pages 4-127 and 4-128, respectively).
23	Biology, Plants, and Wildlife	The description of the mountain lion was changed in the Final Environmental Impact Statement on page 4-127 to read, “AGFD has stated that lions should be considered an animal with the potential to occur in SMPP, which could represent a portion of its home range, but not a resident animal.” As noted on page 4-128 of the Final Environmental Impact Statement, although wild horses are present on Gila River Indian Community land, the habitat assessment concluded no suitable habitat for wild horses exists within the Study Area. However, like Interstate 10, which passes through the Gila River Indian Community and where wild horses are known to occur, the proposed freeway would be lined with right-of-way fencing that would prevent vehicular collisions with wild horses and burros.
24	Biology, Plants, and Wildlife	The Draft Environmental Impact Statement addressed the Pee Posh eagles, but not by name, on page 4-124. A Biological Evaluation was submitted to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and the Gila River Indian Community Department of Environmental Quality that addressed threatened and endangered species. The U.S. Fish and Wildlife Service concurred with the species determinations in the Biological Evaluation (see Appendix 1-1 of the Final Environmental Impact Statement). The Biological Evaluation also addressed the breeding eagles in the Pee Posh wetlands in conformance with the Bald and Golden Eagle Protection Act.

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	Attachment South Mountain (Loop 202) July 11, 2013 Sonoran desert toad occurs in the area and was seen in a recent field investigation (Marshall and Wolff-Krauter 2013). 25 The California leaf-nosed bat, western red bat, and western yellow bat are all likely to occur in and around the study area. Pre-design surveys should be conducted to determine presence and distribution of bat species across the study area so that construction can avoid sensitive areas both spatially and temporally. These surveys should include deployment of radio transmitters to locate roosts for all bat species present. Maternity roosts would be of particular interest, but an effort should be made to identify roosts across all seasons. In addition, the EIS should commit to incorporating design features on all bridges (including wildlife underpasses and overpasses) to accommodate bat day-roosts: greater than 10' above ground, vertical crevices 0.5 to 1.25" wide and 12" deep, sealed from rainwater and debris from entering from above, full sun exposure of the structure, not situated over busy roads or high human traffic underneath the structure (http://www.azgfd.gov/hgis/pdfs/BridgeGuidelines.pdf). Page 4-122 26 Lack of documentation in not an accurate indication of Yuma clapper rail absence. Prior to construction, a series of targeted surveys should be completed at all water bodies for Yuma clapper rail to verify presence/absence. As with the impacts to wetlands and bald eagle foraging habitat, and impacts to potential Yuma clapper rail habitat should be avoided when possible, and minimized and mitigated for (offset) when impacts are unavoidable. 27 Yellow-billed cuckoo (YBCU) occurrence data should be updated to include recent (summer 2013) documentation along the restored riparian habitat on the Salt River proximal to the Audubon Rio Salado center on Central Avenue. Given the close documented occurrences on either side of the study area and the suitable habitat within the study area, the Department would like to see the project specify mitigation for YBCU habitat including the preservation of any existing mature riparian trees (cottonwoods and willow in particular), planting additional cottonwoods and willows, and securing water availability in perpetuity so that these riparian communities will persist and thrive. 28 In June of 2011, the Sonoran desert tortoise was designated as <i>Gopherus morafkai</i> a separate species from <i>Gopherus agassizii</i> rather than merely a distinct population. While predation is certainly a factor in population trends for long-lived species like tortoises, and coyotes have been a factor in some Mohave desert tortoise populations, there is no indication that predation rates on Sonoran desert tortoises have increased above historic rates (unless considering conflicts with domestic and feral dogs). Nor have studies shown predation to cause Sonoran tortoise population crashes or declines in systems without significant anthropogenic impacts. So predation probably doesn't belong on the list of threats to the species. However, Upper Respiratory Tract Disease is a significant concern for Sonoran desert tortoises. The disease can

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25	Biology, Plants, and Wildlife	The Sonoran Desert toad was added to the list of species occurring in the Study Area in the Biological Evaluation. Table 4-44 of the Draft Environmental Impact Statement indicates that these bat species may occur throughout the Study Area; this was updated to “may occur” in the Final Environmental Impact Statement (see Table 4-43 on pages 4-129 to 4-132). Surveys to determine the presence and distribution of the wide range of species, including bat species, is beyond the scope of the proposed project. Designing bridges for bat habitat is not a standard accommodation that the Arizona Department of Transportation currently provides. The Federal Highway Administration and Arizona Department of Transportation have committed to continue coordination with the Arizona Game and Fish Department through the design process (see <i>Mitigation</i>, beginning on page 4-138 of the Final Environmental Impact Statement).
26	Biology, Plants, and Wildlife	As noted on page 4-126 of the Final Environmental Impact Statement, suitable habitat did not exist within the right-of-way of or immediately adjacent to any action alternative at the time the study was completed. If conditions change over time and suitable habitat for the Yuma clapper rail were to exist within the right-of-way of or immediately adjacent to a Selected Alternative—should it be an action alternative—surveys would be completed and, if appropriate, consultation with the U.S. Fish and Wildlife Service would occur. The Federal Highway Administration and Arizona Department of Transportation have committed to continue coordination with the Arizona Game and Fish Department, Gila River Indian Community Department of Environmental Quality, and U.S. Fish and Wildlife Service through the design process (see <i>Mitigation</i>, beginning on page 4-138 of the Final Environmental Impact Statement).
27	Biology, Plants, and Wildlife	A Biological Evaluation was submitted to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and the Gila River Indian Community Department of Environmental Quality that addressed threatened, endangered, and candidate species, including the yellow-billed cuckoo. The potential for impacts on suitable habitat for the yellow-billed cuckoo within the right-of-way of the Preferred Alternative was addressed in the Biological Evaluation. The U.S. Fish and Wildlife Service concurred with the species determinations in the Biological Evaluation (see Appendix 1-1 of the Final Environmental Impact Statement). If appropriate, surveys would be completed and consultation with the U.S. Fish and Wildlife Service would occur as the project progresses through design. The Federal Highway Administration and Arizona Department of Transportation have committed to continue coordination with the Arizona Game and Fish Department, Gila River Indian Community Department of Environmental Quality, and U.S. Fish and Wildlife Service through the design process (see <i>Mitigation</i>, beginning on page 4-138 of the Final Environmental Impact Statement).
28	Biology, Plants, and Wildlife	A Biological Evaluation was submitted to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and the Gila River Indian Community Department of Environmental Quality that addressed threatened, endangered, and candidate species, including the Sonoran desert tortoise. The information used to prepare the analysis in the Draft Environmental Impact Statement (page 4-122) was based on 2011 information retrieved from the Arizona Game and Fish Department (<i>Gopherus agassizii</i>, draft unpublished abstract compiled and edited by the Heritage Data Management System, Phoenix). Current information

(Response 28 continues on next page)

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	Attachment South Mountain (Loop 202) July 11, 2013 be introduced into a population via interaction with humans. So, an increase in the frequency of human-tortoise interactions will raise the potential for both disease introduction and illegal collection. Multi-functional crossing structures intended for use by both humans and tortoises (along with other wildlife) could pose significant risks to the local tortoise population through such increased potential. Grandmaison, et. al (2010) provided results with insight into the habitat components important for considerations in maintaining habitat connectivity for desert tortoise. The maintaining of desert washes for providing shelter sites and natural vegetation important for preservation of a linkage. Desert tortoises are known to occur in the study area. It is recommended surveys be performed prior to construction and long-term measures to prevent road mortality while maintaining permeability should be implemented to prevent population declines in such a long-lived species. These measures should include further analyses of all types of crossing structures and fencing since limited desert tortoise use of retro-fitted culverts has been documented. Fencing should be implemented to keep as many small reptiles, amphibians, and mammals off of the road surface as possible while funneling them to appropriately designed underpasses and culverts. Roads impede tortoise movements and have been identified as a significant threat to tortoise populations throughout their distribution (AGFD unpublished data, AIDTT 2000, Berry 1986a, Berry 1986b, Boarman 1991, Boarman et al. 1993, Nicholson 1979, von Seckendorff Hoff and Marlow 2002). Desert tortoises occur at relatively low density, have low reproductive rates, and low mobility, three characteristics that heighten their sensitivity to road-induced habitat loss (Trombulak and Frissell 2000, Gibbs and Shriver 2002). Culverts should be large, lighted, with a natural substrate floor and approach (not rip rap which will preclude use by most species). Innovative designs are emerging to meet hydrological scour needs as well as wildlife connectivity for structure approach areas. These designs should be investigated and eventually incorporated into standard design specifications. During construction a trained biologist from ADOT or the Department should also be on site to oversee any potential tortoise encounters and relocations. Table 4-45 Page 4-123 While no suitable habitat for the southwestern willow flycatcher currently exists, it is likely that they historically nested along both the Gila and Salt Rivers when perennial water supply sustained more robust riparian habitat. The Department is excited that the project has this opportunity to improve habitat conditions rather than merely trying to avoid, minimize, and mitigate the threats that transportation infrastructure poses to wildlife. The Department would like to see the project commit to restoring sections of former riparian habitat within the study area. Such efforts would gain ADOT substantial public support on a project with very high public interest.

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28 (cont.)		on threats and connectivity strategies was included in the Biological Evaluation. The U.S. Fish and Wildlife Service concurred with the species determinations in the Biological Evaluation (see Appendix 1-1 of the Final Environmental Impact Statement). The intended uses of the multifunctional crossings would vary by location within the Study Area. If the crossings were near existing recreational features or trails, more human use would be expected. However, multifunctional crossings in remote areas through the South Mountains would allow limited use by people. Use of the crossings by people in this area is proposed solely to accommodate those members of the Gila River Indian Community who wish to gain access to areas of the South Mountains for ceremonies important for their culture (see Final Environmental Impact Statement page 4-151). A right-of-way fence would limit access to these areas by freeway users, but would allow Gila River Indian Community members to gain access to the area (see page 5-27 of the Final Environmental Impact Statement). The underpasses would not be associated with trailheads into the park and would not be designated as such for pedestrian, equestrian, off-highway vehicle, or bicyclist use. Other use of the underpasses by humans would be neither actively promoted nor encouraged through the signs posted. The Federal Highway Administration and Arizona Department of Transportation have committed to continue coordination with the Arizona Game and Fish Department, Gila River Indian Community Department of Environmental Quality, and U.S. Fish and Wildlife Service regarding wildlife concerns as a result of the freeway’s potential implementation. Wildlife-friendly design information would be considered during the design of drainage and crossing structures for the freeway (see <i>Mitigation</i>, beginning on page 4-138 of the Final Environmental Impact Statement). A mitigation measure to conduct a preconstruction survey for the Sonoran desert tortoise, where appropriate and according to the most recent guidelines from the Arizona Game and Fish Department or U.S. Fish and Wildlife Service, has been added to the Final Environmental Impact Statement on page 4-138.
29	Biology, Plants, and Wildlife	If an action alternative were to be selected that includes a bridge within the limits of the Rio Salado Oeste restoration project (between 19th and 83rd avenues), the project team would continue to consult with the Bureau of Land Management, U.S. Army Corps of Engineers, and City of Phoenix to coordinate design efforts (see page 4-15 of the Final Environmental Impact Statement). However, it is important to note that it is not the obligation of the proposed action to mitigate impacts caused by other unrelated actions. The need for mitigation related to impacts on waters of the United States has not been determined, but could involve payment of in-lieu fees for use in restoration of habitat within the Salt River.

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30	Attachment South Mountain (Loop 202) July 11, 2013 See above comments regarding yellow-billed cuckoo and Sonoran desert tortoise. In addition, clarification is needed for the Tucson shovel-nosed snake (TSNS). as the habitat description in the DEIS: The Tucson shovel-nosed snake is known in all directions of South Mountain. The absence of documented occurrences within the project area is likely due to the lack of surveys and the difficulty associated with surveying and documenting these snakes. However the Department’s HabiMap tool (http://www.habimap.org/habimap/) shows swaths of modeled TSNS habitat traversing the project area in several locations with large patches immediately adjacent to the project area. This is inconsistent with the DEIS implication that no TSNS habitat exists in the study area: TSNS habitat is described as “sonoran desertscrub; soft sandy soils with sparse gravel; creosotebush-mesquite floodplains;” and TSNS occurrence is described as “No soft, sandy soils with sparse gravel within the floodplains in the study area.” This purported habitat requirement is inaccurate, and reflects a widely perpetuated misconception that the soils are always soft and sandy where this species occurs. Shovel-nosed snakes also occur on firm soils in creosote bush flats, where they apparently use small mammal burrows frequently, rather than “swimming” through sand, for which they are well known. They don’t appear to be completely restricted to creosote flats, either, so it would be reasonable to assume they might also occupy habitats adjacent to major flood plains (e.g., sandy soils associated with the inactive floodplain). If there are <i>any</i> creosote flats within the project area, there is the potential for Tucson shovel-nosed snakes.. The study area is traversed by large swaths of flat creosote – bursage communities, so there is a distinct possibility that TSNS occur within these areas of overlap. Since there is potential for TSNS within the study area and survey methods are unproven, ADOT mitigation should include working with the Department to establish appropriate pre-construction survey methods and road-mortality prevention measures such as funneling barrier, culvert lighting, underpass and culvert substrate, and structure approach substrate. Page 4-124 Bald and Golden Eagle Protection Act See above comments regarding nesting bald eagle forage habitat and updated fledging statistics for the Pee Posh nest. Also, one photo in the June (the driest month of the year) does not sufficiently indicate typical availability of water during January – May which are most critical for nesting eagles. Environmental Consequences The Tucson shovel-nosed snake has been documented north, south, east and west of the study area. The yellow-billed cuckoo has now been documented to the east and west of the study area.

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30	Biology, Plants, and Wildlife	A summary of potential impacts to the Tucson shovel-nosed snake has been added to the Final Environmental Impact Statement on page 4-135. Table 4-44 has been updated, and a mitigation measure to conduct a preconstruction survey for the Tucson shovel-nosed snake has been added to the Final Environmental Impact Statement on page 4-138. A Biological Evaluation was submitted to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and the Gila River Indian Community Department of Environmental Quality that addressed threatened, endangered, and candidate species, including the Tucson shovel-nosed snake. The U.S. Fish and Wildlife Service concurred with the species determinations in the Biological Evaluation (see Appendix 1-1 of the Final Environmental Impact Statement). The Federal Highway Administration and Arizona Department of Transportation have committed to continue coordination with the Arizona Game and Fish Department, Gila River Indian Community Department of Environmental Quality, and U.S. Fish and Wildlife Service regarding wildlife concerns as a result of the freeway’s potential implementation. Wildlife-friendly design information would be considered during the design of the drainage and crossing structures for the freeway (see <i>Mitigation</i>, beginning on page 4-138 of the Final Environmental Impact Statement).
31	Biology, Plants, and Wildlife	A Biological Evaluation was submitted to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and the Gila River Indian Community Department of Environmental Quality that addressed threatened, endangered, and candidate species. The U.S. Fish and Wildlife Service concurred with the species determinations in the Biological Evaluation (see Appendix 1-1 of the Final Environmental Impact Statement). The Biological Evaluation also addressed the breeding eagles in the Pee Posh Wetlands in conformance with the Bald and Golden Eagle Protection Act. During the design phase, surveys for listed species may be undertaken if suitable habitat were to be located within or immediately adjacent to right-of-way of the Selected Alternative (if it were an action alternative). A description of riparian plant communities was added in the <i>Plant Community</i> section of the Final Environmental Impact Statement (see page 4-126). The Federal Highway Administration and Arizona Department of Transportation have committed to continue coordination with the Arizona Game and Fish Department, Gila River Indian Community Department of Environmental Quality, and U.S. Fish and Wildlife Service through the design process (see <i>Mitigation</i>, beginning on page 4-138 of the Final Environmental Impact Statement).

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	Attachment South Mountain (Loop 202) July 11, 2013 The assumption should be reflected in the document of the potential suitable habitat and potential for occurrences. The assumption that the project would not affect candidate species other than Sonoran desert tortoises is flawed because it is based on opportunistically gathered occurrence data and faulty habitat parameter assumptions. A series of targeted surveys should be conducted for each candidate species (Tucson shovel-nosed snake, yellow-billed cuckoo, Yuma clapper rail) along with validation of survey methods in areas with known populations of these species before arriving at this conclusion. The Department agrees that the project has the potential to impact foraging for nesting bald eagles since foraging opportunities exist in and adjacent to the study area. Please specify the mitigation actions to be taken relative to potential impacts to foraging bald eagle behavior. When discussing the areas adjacent to the study area, please include agricultural fields and riparian corridors. Page 4-125 Text box – Habitat Connectivity and the Proposed Action The Department recommends further discussion of the movement between the Sierra Estella’s and South Mountain. As the Maricopa County report indicated the need for additional expert input and research for assessing wildlife movement, the Department does have recent data for the area of the Estrella’s, including mountain lion and bighorn sheep. The Department would like to see a stronger commitment in the EIS, including funding of needed research to ensure that connectivity mitigations are appropriately and effectively implemented. The discussion regarding potential wildlife crossings should reflect our above discussion in the letter about the different requirements based on the species. For example, underpasses may not facilitate movement for large game species like big horn sheep and mule deer. Runoff directed from bridges over the Salt River would amount to approximately the same amount of water that would have fallen to the habitat if the bridges were not present. Runoff from highways often contains oil, antifreeze, and other chemical pollutants that can compromise the quality or even completely eliminate surrounding habitat (Forman et al 2003). Diverting runoff directly to riparian systems as a source of additional water could actually result in the complete loss of that habitat from the pollutants that the water carries. Direct application of this water should be avoided, and unless treatment is possible, this water should be diverted away from habitat. The picture of the “typical large-animal crossing” is misleading because it shows a bus present in a location that renders the structure completely ineffective. This bus was part of a tour and

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32	Biology, Plants, and Wildlife	We do not dispute the potential benefit of conducting a “multi-year” study to locate wildlife mitigation measures. However, it is also important to recognize that such studies need to be conducted in areas exhibiting priority wildlife-related highway safety and connectivity issues. The section of the highway corridor where the multiuse crossings are proposed was not identified as a linkage zone within the 2006 Arizona Wildlife Linkages Assessment or the 2012 Maricopa County Wildlife Connectivity Assessment, and likely would exhibit relatively low wildlife-vehicle collision incidence in the future given low wildlife densities found within this portion of the corridor. The 2012 Maricopa County Wildlife Connectivity Assessment did identify a movement corridor at the southwestern end of Phoenix South Mountain Park/Preserve. A large bridge proposed for the roadway in this area would allow continued wildlife connectivity in this area. Depending on the design of the proposed road drainage system, the amount of water entering the Salt River can be greater using roadside channels that collect and direct water that would otherwise infiltrate soils or collect in natural depressions. Highway runoff is generally not harmful compared with general urban runoff (Federal Highway Administration 2012) that also flows into the Salt River; however, there can still be a potential threat to the surrounding ecosystem. With proper treatments such as detention and vegetated treatments, runoff has the potential to benefit habitat in the Salt River. The picture of the “typical large-animal crossing” was replaced in the Final Environmental Impact Statement (see page 4-137). A noise wall along the entire length of the project would not be feasible. The impact on wildlife hearing would be similar to other freeway facilities in the Phoenix metropolitan area.

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	Attachment South Mountain (Loop 202) July 11, 2013 allowed special access for a very limited time. AGFD would gladly provide a more appropriate picture of this or another crossing structure for inclusion in the EIS if desired. General Impacts on Wildlife and Wildlife Habitat Noise retention walls along the length of the freeway could mitigate the deafening effects on wildlife and double as exclusion barrier to funnel wildlife to appropriate crossing structures. Page 4-126 The discussion regarding modification to former gravel pits, specifically the water sources associated with these ponds, would also impact potential foraging by bald eagles. Therefore, further down in paragraph 5, the project would potentially impact foraging behavior of bald eagles. Please see previous comments regarding recommendations for Bald Eagle considerations including consultation with USFWS. There is some inconsistency about the presence of suitable habitat for Yuma clapper rail and yellow-billed cuckoo in and around the study area. There is an indication that breeding Yuma clapper rails were documented from 91st avenue west along the Salt River. And it was also indicated that there was suitable habitat for the yellow-billed cuckoo in and adjacent to the study area. Please clarify these apparent contradictions. Please provide additional information regarding the impacts of highway noise. Lack of occurrence records does not conclusively indicate absence (from a given area) without extensive survey efforts or additional information on precluding factors. Also, what is the maximum decibel level at the cited distances of occurrence? Please indicate if there is empirical evidence to suggest that these sound levels do not impact wildlife species. Given the planned habitat restoration projects along the Salt River from 91st avenue to the west (Tres Rios demonstration wetlands project) and 83rd avenue to the east (Rio Salado Oeste), the stretch of 91st avenue to 83rd avenue becomes substantial value. This are now becomes a vital connection between these two restoration efforts and should be considered a priority for maintaining wildlife connectivity. Habitat Connectivity Impacts on biological resources during freeway operation would not be mostly limited to vehicle collisions and noise disturbance, but would also include reduced permeability and habitat fragmentation for many species (unless cost-prohibitive measures such as elevated or subterranean grades were utilized for virtually the entire extent of the freeway). These effects may be reduced by appropriate mitigation measures, and might help protect against more

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33	Biology, Plants, and Wildlife	The reference to “former gravel pits” was changed to “gravel pits” on page 4-127 in the Final Environmental Impact Statement because these are still in operation with active mining permits. Since the final design of the proposed freeway has not begun, it is not known what specific modifications would be made to a particular gravel pit; however, it is anticipated that modifications could include partial filling if the pit is not bridged or avoided. The text on page 4-126 of the Draft Environmental Impact Statement regarding use of the pits by birds refers to the pits being used as a water source, not to potential modification of the water source for the pits or channel of the Salt River. A Biological Evaluation was submitted to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and the Gila River Indian Community Department of Environmental Quality that addressed threatened, endangered, and candidate species, including the Yuma clapper rail and yellow-billed cuckoo. The U.S. Fish and Wildlife Service concurred with the species determinations in the Biological Evaluation (see Appendix 1-1 of the Final Environmental Impact Statement). The Biological Evaluation also addressed the breeding eagles in the Pee Posh wetlands in conformance to the Bald and Golden Eagle Protection Act. While there is suitable habitat for the Yuma clapper rail and yellow-billed cuckoo in the Study Area, no suitable habitat was identified within or immediately adjacent to the anticipated right-of-way for any of the action alternatives. This discrepancy was corrected in the Final Environmental Impact Statement on page 4-134. Limited research has been conducted on the relationships of highways, traffic volume, noise, and impacts on wildlife. Some studies have alluded to noise as being harmful to wildlife populations, but most information to date has documented impacts on songbirds (Reijnen et al. 1995a, 1996) where densities next to highways were lower for 60 percent of the species, and species richness was a third lower. The “noise effect zone” adjacent to highways varied greatly by vegetative type (Reijnen et al. 1995b) as well as traffic volume (Reijnen et al. 1995a). These factors then relate to the noise impact distance on wildlife, extending 0.25 mile (1,320 feet) with 8,000 to 15,000 vehicles per day, 0.40 mile (2,112 feet) with 15,000 to 30,000 vehicles per day, and 0.75 mile (3,960 feet) with greater than 30,000 vehicles per day (Forman and Deblinger 2000; Forman et al. 1997). As such, with the projected high use of the corridor, noise impacts from traffic are anticipated to have a considerable effect on all species of wildlife, ranging from song birds to eagles to large mammals including mule deer, and may limit their use of adjacent habitats. As noted above, potential impacts on habitat in the Salt River channel would be associated with construction of a bridge if an action alternative were to become the Selected Alternative. There would be short-term impacts associated with construction, but long-term impacts on connectivity are unlikely because the bridge design would be similar to existing bridges constructed across the Salt River channel in terms of a high openness ratio and natural substrate.

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34	Attachment South Mountain (Loop 202) July 11, 2013 allowed special access for a very limited time. AGFD would gladly provide a more appropriate picture of this or another crossing structure for inclusion in the EIS if desired. General Impacts on Wildlife and Wildlife Habitat Noise retention walls along the length of the freeway could mitigate the deafening effects on wildlife and double as exclusion barrier to funnel wildlife to appropriate crossing structures. Page 4-126 The discussion regarding modification to former gravel pits, specifically the water sources associated with these ponds, would also impact potential foraging by bald eagles. Therefore, further down in paragraph 5, the project would potentially impact foraging behavior of bald eagles. Please see previous comments regarding recommendations for Bald Eagle considerations including consultation with USFWS. There is some inconsistency about the presence of suitable habitat for Yuma clapper rail and yellow-billed cuckoo in and around the study area. There is an indication that breeding Yuma clapper rails were documented from 91st avenue west along the Salt River. And it was also indicated that there was suitable habitat for the yellow-billed cuckoo in and adjacent to the study area. Please clarify these apparent contradictions. Please provide additional information regarding the impacts of highway noise. Lack of occurrence records does not conclusively indicate absence (from a given area) without extensive survey efforts or additional information on precluding factors. Also, what is the maximum decibel level at the cited distances of occurrence? Please indicate if there is empirical evidence to suggest that these sound levels do not impact wildlife species. Given the planned habitat restoration projects along the Salt River from 91st avenue to the west (Tres Rios demonstration wetlands project) and 83rd avenue to the east (Rio Salado Oeste), the stretch of 91st avenue to 83rd avenue becomes substantial value. This are now becomes a vital connection between these two restoration efforts and should be considered a priority for maintaining wildlife connectivity. Habitat Connectivity Impacts on biological resources during freeway operation would not be mostly limited to vehicle collisions and noise disturbance, but would also include reduced permeability and habitat fragmentation for many species (unless cost-prohibitive measures such as elevated or subterranean grades were utilized for virtually the enitre extent of the freeway). These effects may be reduced by appropriate mitigation measures, and might help protect against more

Code	Issue	Response
34	Biology, Plants, and Wildlife	The text box on page 4-137 of the Final Environmental Impact Statement has been updated to include discussion of reduced permeability and habitat fragmentation. The comments on the Draft Environmental Impact Statement contradict previous communication with the Arizona Game and Fish Department for the project. The last formal communication from the Arizona Game and Fish Department in 2006 (see page A139 in Appendix 1-1 of the Final Environmental Impact Statement) stated that the movement corridor between the South Mountains and the Sierra Estrella is degraded by the 51st Avenue travel corridor and planned development in the Study Area. Data presented in the Draft and Final Environmental Impact Statements corroborate this statement (see the sidebar, “<i>Existing versus planned land use</i>,” on page 4-3 of both documents). A large percentage of the land in the Study Area is projected to be converted to nonagricultural uses in the foreseeable future. The above-referenced 2006 letter from the Arizona Game and Fish Department also stated that mule deer are believed to have been extirpated from the area. There was no mention of concerns with bighorn sheep. The Federal Highway Administration and Arizona Department of Transportation have committed to providing mitigation by including multifunctional crossing structures designed for wildlife such as mule deer and for limited human use, potential fencing to guide wildlife to the crossing structures, and culverts designed for connectivity for smaller species. The intent of the term “migration” was to make the distinction between true seasonal migration versus dispersal or movement within a home range, for which there was public confusion early in the study process. However, the sentence, “With respect to vehicle-wildlife collisions, no major migration corridors were documented in the Study Area” which appears on page 4-126 of the Draft Environmental Impact Statement was removed from the Final Environmental Impact Statement. See Figure 3-25 on page 3-47 of the Draft Environmental Impact Statement for the location of the structures. Figure 4-38 on page 4-126 of the Final Environmental Impact Statement also includes the multifunctional structures. The intended uses of the multifunctional crossings would vary by location within the Study Area. If the crossings were near existing recreational features or trails, more human use would be expected. However, multifunctional crossings in remote areas through the South Mountains would allow limited use by people. Use of crossings by people in this area is proposed solely to accommodate those members of the Gila River Indian Community who wish to gain access to areas of the South Mountains for ceremonies important for their culture (see Final Environmental Impact Statement page 4-151). A right-of-way fence would limit access to these areas by freeway users, but would allow Gila River Indian Community members to gain access to the area (see page 5-27 of the Final Environmental Impact Statement). The underpasses would not be associated with trailheads into the park and would not be designated as such for pedestrian, equestrian, off-highway vehicle, or bicyclist use. Other use of the underpasses by humans would be neither actively promoted nor encouraged through signs posted.

Code	Comment Document
	Attachment South Mountain (Loop 202) July 11, 2013 substantial fragmentation under other scenarios, but they will still substantially reduce the ability of many species to move freely across the landscape. , etc.Historic data provides information for bighorn sheep and mule deer utilizing the area. South Mountain has the potential to provide seasonal habitat for mule deer and possibly bighorn sheep. Migration of species such as bats is largely unknown in the state. The claim that “no important migration corridors were documented” carries an implication that movements across this area are not important. And while seasonal migrations are indeed critical to many species, daily and opportunistic movements among various blocks of habitat to avoid isolated climatic events, predation pressure, and availability of localized food resources are just as essential to population viability. So the term migration corridor should be clarified and phrasing should be selected that avoids the implication of prioritizing migratory movements over access among vital resources and habitat blocks. Please include identified tentative mitigation structure locations in EIS figures. Please see above comments for information on why referenced crossings should exclusively target wildlife and not be multifunctional/multiuse. No-Action Alternative While the projections of increased urban development under the No-Action Alternative are possible, the potential for increased development pressure on GRIC lands under one or more of the Action Alternatives is equally possible unless no interchanges are included on the freeway within several miles of the critical linkage pathway. So it is conceivable that the No-Action Alternative could retain existing connectivity for a longer duration. Given the uncertainty of these predictions, the Department feels that the most responsible approach is to avoid speculation on the degree of fragmentation due to factors beyond the scope of this project and therefore remove the suggestion that the No-Action Alternative will result in greater fragmentation, habitat loss, and animal-vehicle collisions. Mitigation The Department appreciates mention of further coordination and looks forward to expanding and/or providing additional specific measures, some of which were mentioned in the attached letter. Design Responsibilities The Department appreciates mention of further coordination. Please also refer to our previous discussion in the letter regarding multi-functional crossing.

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Code	Issue	Response
35	Biology, Plants, and Wildlife	The statement regarding the potential for the No-Action Alternative to result in greater fragmentation, habitat loss, and animal-vehicle collisions was removed from the text of the Final Environmental Impact Statement.
36	Biology, Plants, and Wildlife	Comment noted.
37	Biology, Plants, and Wildlife	Comment noted and discussed earlier. Wording was changed as suggested (see page 4-138 of the Final Environmental Impact Statement). The intended uses of the multifunctional crossings would vary by location within the Study Area. If the crossings were near existing recreational features or trails, more human use would be expected. However, multifunctional crossings in remote areas through the South Mountains would allow limited use by people. Use of crossings by people in this area is proposed solely to accommodate those members of the Gila River Indian Community who wish to gain access to areas of the South Mountains for ceremonies important for their culture (see Final Environmental Impact Statement page 4-151). A right-of-way fence would limit access to these areas by freeway users, but would allow Gila River Indian Community members to gain access to the area (see page 5-27 of Final Environmental Impact Statement). The underpasses would not be associated with trailheads into the park and would not be designated as such for pedestrian, equestrian, off-highway vehicle, or bicyclist use. Other use of the underpasses by humans would be neither actively promoted nor encouraged through signs posted. The Federal Highway Administration and Arizona Department of Transportation have committed to continue coordination with the Arizona Game and Fish Department, Gila River Indian Community Department of Environmental Quality, and U.S. Fish and Wildlife Service regarding wildlife concerns as a result of the freeway’s potential implementation. Wildlife-friendly design information would be considered during the design of the drainage and crossing structures for the freeway (see <i>Mitigation</i> , beginning on page 4-138 of the Final Environmental Impact Statement).

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37	Please consider rewording “The proposed action would be designed to provide opportunities for wildlife movement...” to “...designed to protect and maintain opportunities...”
37	Please see above comments for information on why referenced crossings should exclusively target wildlife and not be multifunctional/multiuse.
	Page 4-127
38	Various wildlife taxa (herpetofauna, mammals) should be surveyed in addition to birds prior to design and construction.
	The contractor should employ a biologist to survey for Sonoran desert tortoises immediately prior to construction as with the listed burrowing owl mitigation. Also a trained biologist should be present during construction activities to implement Department handling procedures.
	Conclusions
	Construction of the E1 Alternative may also affect the Tucson shovel-nosed snake. Please see previous comments for explanation of faulty TSNS habitat assessment.
	Please see previous comments regarding the removal of the claim that “no major migration corridors are known.”
	Noise disturbance would be long-term because of sustained traffic on the in-use freeway. Sound retention walls should be implemented for the length of the freeway and can also be used to funnel wildlife to appropriate crossing structures.
39	See above comments for an explanation of why during operation impacts should also include wildlife habitat fragmentation.
	Best management practices are mentioned but not explained and do not represent any inherent mitigation. Please outline what best management practices will be implemented to mitigate for wildlife resource impacts.
	Please remove speculative claim that the No-Action Alternative would result in worsened conditions for wildlife via accelerated conversion of habitat to human-oriented uses. (see the Department’s No-Action Alternative comments for an explanation).
	Page 4-171
	Cumulative Impacts
	Habitat Loss

Code	Issue	Response
38	Biology, Plants, and Wildlife	A mitigation measure to conduct a preconstruction survey for the Tucson shovel-nosed snake and Sonoran desert tortoise, where appropriate and according to the most recent guidelines from the Arizona Game and Fish Department or U.S. Fish and Wildlife Service, was added to the Final Environmental Impact Statement on page 4-138. The Federal Highway Administration and Arizona Department of Transportation are committed to continuing coordination during the design process with the Arizona Game and Fish Department, Gila River Indian Community Department of Environmental Quality, and U.S. Fish and Wildlife Service regarding wildlife concerns related to the proposed project (see <i>Mitigation</i>, beginning on page 4-138 of the Final Environmental Impact Statement). Specific mitigation measures related to treatment of Sonoran desert tortoises during construction would be developed during the design phase of the project as more became known about likely construction methods and the likely frequency of encountering tortoises and other species during construction.
39	Biology, Plants, and Wildlife	A mitigation measure to conduct a preconstruction survey for the Tucson shovel-nosed snake, where appropriate and after consultation with the Arizona Game and Fish Department, was added to the Final Environmental Impact Statement on page 4-138. The Federal Highway Administration and Arizona Department of Transportation have committed to continue coordination with the Arizona Game and Fish Department, Gila River Indian Community Department of Environmental Quality, and U.S. Fish and Wildlife Service regarding wildlife concerns as a result of the freeway’s potential implementation. Wildlife-friendly design information would be considered during the design of drainage and crossing structures for the freeway (see <i>Mitigation</i>, beginning on page 4-138 of the Final Environmental Impact Statement). The intent of the term “migration” was to make the distinction between true seasonal migration versus dispersal or movement within a home range, for which there was public confusion early in the study process. However, the sentence, “With respect to vehicle-wildlife collisions, no major migration corridors were documented in the Study Area” that appears on page 4-126 of the Draft Environmental Impact Statement was removed from the Final Environmental Impact Statement. The <i>Conclusions</i> section, on page 4-127 of the Draft Environmental Impact Statement, included the statement that “construction” would cause short-term noise disturbance. The following sentence indicated that “operation” of the freeway would cause noise disturbance to wildlife. A noise wall along the entire length of the project would not be feasible. The impact on wildlife hearing would be similar to that of other freeway facilities in the Phoenix metropolitan area. No justification for this request is provided in the comment. The <i>Conclusions</i> section, on page 4-127 of the Draft Environmental Impact Statement, included habitat fragmentation as an impact that would result from operation of the freeway. The Arizona Department of Transportation’s best management practices for erosion and pollution control such as revegetation, which are part of the Arizona Department of Transportation’s standard practices, affect all levels of biological concern in general, not just wildlife.

(Response 39 continues on next page)

Code	Comment Document
	Attachment South Mountain (Loop 202) July 11, 2013 40 The category of land in human-related does not define the wildlife value of those lands. While natural lands are ideal for wildlife habitat, agricultural lands also provide significant resources for wildlife persistence. The conversion of agricultural lands into urban use is an even more significant loss for some species than conversion from natural to agricultural. So the implication that the “pre-freeway” development period resulted in greater wildlife habitat loss than the “with-freeway” period is not valid without additional support data. Page 4-172 Habitat Connectivity 41 While the Department is very supportive of the project’s consideration of the compounded effects of multiple development projects which are substantially greater than the effects of the individual developments, the Department would like to clarify that without mitigation most of the planned residential, commercial, and transportation developments will individually have substantive negative impacts on wildlife connectivity. Please see above comments for information on why referenced crossings should exclusively target wildlife and not be multifunctional/multiuse. Vehicle-animal Collisions Please see above comments for information on why referenced crossings should exclusively target wildlife and not be multifunctional/multiuse. 41 Please consider including language that commits the project to including funnel fence/barrier that will exclude wildlife species from the freeway corridor and funnel them to wildlife crossings and please include explicit reference to target fauna: mule deer, desert bighorn sheep, javelina, Sonoran desert tortoise, Tucson shovel-nosed snake, etc. The final sentence of this section seems to contradict the claims of the mitigation efforts of the rest of the DEIS as it suggests that collisions will decrease because the fragmentation and habitat loss will render this land uninhabitable by wildlife species. This outcome represents the failure of all mitigation efforts. Instead, collisions can be mitigated and managed by appropriate exclusionary infrastructure that links appropriate crossings at adequate intervals. Page 4-173Threatened and Endangered Species Please expand on the anticipated cumulative impacts of development that is likely to occur as a result of the proposed project. Page 4-176

Code	Issue	Response
39 (cont.)		The No-Action Alternative discussion on page 4-126 of the Draft Environmental Impact Statement referred to private property (non-Gila River Indian Community land). All property along the E1 Alternative is private property with the exception of an approximately 0.3-mile segment of Phoenix South Mountain Park/Preserve that borders the Gila River Indian Community along a section of creosote flats. These private properties, including the ridges on the western end of the South Mountains, are zoned for residential land use. Recent development history in this area of the South Mountains strongly suggests a potential for the trend to continue and the possibility of greater wildlife impacts.
40	Biology, Plants, and Wildlife	The Draft Environmental Impact Statement does not conclude that the “pre-freeway” development period resulted in greater habitat loss than would be the case in the “with-freeway” period. The text indicated when the greatest loss occurred during the “pre-freeway” period, implying that this loss continued in the “with-freeway” period. The text in the Final Environmental Impact Statement has been revised to clarify this point (see page 4-183).
41	Biology, Plants, and Wildlife	The intended uses of the multifunctional crossings would vary by location within the Study Area. If the crossings were near existing recreational features or trails, more human use would be expected. However, multifunctional crossings in remote areas through the South Mountains would allow limited use by people. Use of crossings by people in this area is proposed solely to accommodate those members of the Gila River Indian Community who wish to gain access to areas of the South Mountains for ceremonies important for their culture (see Final Environmental Impact Statement page 4-151). A right-of-way fence would limit access to these areas by freeway users, but would allow Gila River Indian Community members to gain access to the area (see page 5-27 of the Final Environmental Impact Statement). The underpasses would not be associated with trailheads into the park and would not be designated as such for pedestrian, equestrian, off-highway vehicle, or bicyclist use. Other use of the underpasses by humans would be neither actively promoted nor encouraged through signs posted. The Federal Highway Administration and Arizona Department of Transportation have committed to continue coordination with the Arizona Game and Fish Department, Gila River Indian Community Department of Environmental Quality, and U.S. Fish and Wildlife Service regarding wildlife concerns as a result of the freeway’s potential implementation. Wildlife-friendly design information would be considered during the design of drainage and crossing structures for the freeway (see <i>Mitigation</i>, beginning on page 4-138 of the Final Environmental Impact Statement). As suggested in an earlier comment by the Arizona Game and Fish Department, “... the Department would like to clarify that without mitigation, most of the planned residential, commercial, and transportation developments will individually have substantive negative impacts on wildlife connectivity.” Because this mitigation is not guaranteed, and because of development trends noted in earlier responses, it is reasonable to assume that continued development of this urban landscape will result in reduced wildlife populations.

Code	Comment Document
	Attachment South Mountain (Loop 202) July 11, 2013 The category of land in human-related does not define the wildlife value of those lands. While natural lands are ideal for wildlife habitat, agricultural lands also provide significant resources for wildlife persistence. The conversion of agricultural lands into urban use is an even more significant loss for some species than conversion from natural to agricultural. So the implication that the “pre-freeway” development period resulted in greater wildlife habitat loss than the “with-freeway” period in not valid without additional support data. Page 4-172 Habitat Connectivity While the Department is very supportive of the project’s consideration of the compounded effects of multiple development projects which are substantially greater than the effects of the individual developments, the Department would like to clarify that without mitigation most of the planned residential, commercial, and transportation developments will individually have substantive negative impacts on wildlife connectivity. Please see above comments for information on why referenced crossings should exclusively target wildlife and not be multifunctional/multiuse. Vehicle-animal Collisions Please see above comments for information on why referenced crossings should exclusively target wildlife and not be multifunctional/multiuse. Please consider including language that commits the project to including funnel fence/barrier that will exclude wildlife species from the freeway corridor and funnel them to wildlife crossings and please include explicit reference to target fauna: mule deer, desert bighorn sheep, javelina, Sonoran desert tortoise, Tucson shovel-nosed snake, etc. The final sentence of this section seems to contradict the claims of the mitigation efforts of the rest of the DEIS as it suggests that collisions will decrease because the fragmentation and habitat loss will render this land uninhabitable by wildlife species. This outcome represents the failure of all mitigation efforts. Instead, collisions can be mitigated and managed by appropriate exclusionary infrastructure that links appropriate crossings at adequate intervals. Page 4-173Threatened and Endangered Species Please expand on the anticipated cumulative impacts of development that is likely to occur as a result of the proposed project. Page 4-176

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Code	Issue	Response
42	Biology, Plants, and Wildlife	Cumulative impacts on wildlife are discussed beginning on page 4-174 of the Final Environmental Impact Statement. Induced growth is discussed as a secondary impact on page 4-173. The discussion concludes that the proposed action would occur in an area planned for urban growth as established in local jurisdictions’ land use planning activities for the last 25 years. As such, the proposed action would not provide new or substantially improved access to a large, undeveloped geographic area. Therefore, the action alternatives are not expected to induce growth in the region.

Code	Comment Document
43	Attachment South Mountain (Loop 202) Table 4-58 July 11, 2013 Please include the following in the Biological resources Mitigation Measures box: 1) ungulate/ tortoise/snake funnel/exclusion barrier 2) Pre-design wildlife movement investigations 3) Pre-design & pre-construction surveys for listed, candidate, SGCN, & SERI with potential habitat in or around the study area. 4) Inclusion of bat day roost design parameters in all bridge structures. Page 4-177 Conclusions Unless the proposed freeway does not include any transportation interchanges or exits, it would seem by basic definition that the freeway will substantially improve access to undeveloped and agricultural areas to the south and southwest of the proposed project. This is in conflict with the claim in the Cumulative Effects Conclusions. Please elucidate expected positive consequences for wildlife of contribution to overall traffic use by induced travel. Page 4-178 CONCLUSIONS Please see previous comments regarding the potential for this project to promote development in and around the study area. The Western Section alternatives do not appear to be equal in terms of disruption to nesting bald eagle foraging. Please include this summary in the Chapter 4 CONCLUSIONS. The alteration of drainage patterns on the Eastern Section may substantially impact wildlife habitat and wildlife access to water resources. This was not addressed in terms of wildlife impacts. Please expand the EIS to include such discussion. Literature Cited Ashley, P. E., A. Kosloski, and S. A. Petrie. 2007. Incidence of intentional vehicle-reptile collision. <i>Human Dimensions of Wildlife</i> 12:137-143.
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Code	Issue	Response
43	Biology, Plants, and Wildlife	The mitigation measures for biological resources are presented in greater detail beginning on page 4-138 of the Final Environmental Impact Statement. Additional mitigation measures for the Sonoran desert tortoise and the Tucson shovel-nosed snake have been included. More detailed mitigation measures would be developed during the design process in coordination with agency partners, including the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and the Gila River Indian Community's Department of Environmental Quality, as described in the mitigation measures. Regarding wildlife concerns as a result of the freeway's potential implementation, the Federal Highway Administration and Arizona Department of Transportation have committed to continue coordination with the Arizona Game and Fish Department, Gila River Indian Community Department of Environmental Quality, and U.S. Fish and Wildlife Service through the design process (see <i>Mitigation</i>, beginning on page 4-138 of the Final Environmental Impact Statement).
44	Biology, Plants, and Wildlife	It may seem counter intuitive that constructing a new freeway in an area would not provide substantially improved access to areas along the freeway. However, when the area where the freeway and interchanges would be constructed is in an area that is already planned for development and the existing road network is established, the access conditions would be similar since the land use plan directs the opportunity for access. In this case, the City of Phoenix General Plan has defined the future land uses and roadway system in the Study Area adjacent to the action alternatives outside Gila River Indian Community land. The Gila River Indian Community also has a development plan that identifies development along the northern border of the Gila River Indian Community, regardless of the proposed freeway. The <i>Cumulative Impacts</i> section on page 4-183 of the Final Environmental Impact Statement reiterates the finding that the freeway would not substantially improve access to the geographic area as substantiated in those future development plans. The text of the Draft Environmental Impact Statement does not state or infer that there would be positive consequences for wildlife from overall traffic use by induced travel.
45	Biology, Plants, and Wildlife	As the previous comment response on potential induced development described, the existing future plans for development from the City of Phoenix and the Gila River Indian Community will guide the future development of the Study Area. Each of the Western Section action alternatives would cross the dry Salt River where mining pits are located. Some of these pits are in active mining areas and have changed over time, including becoming completely dewatered, and it is therefore difficult to assess the existence and value of those pits for bald eagle foraging. A Biological Evaluation was submitted to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and the Gila River Indian Community Department of Environmental Quality that addressed threatened, endangered, and candidate species. The U.S. Fish and Wildlife Service concurred with the species determinations in the Biological Evaluation (see Appendix 1-1 of the Final Environmental Impact Statement). The Biological Evaluation also addressed the breeding eagles in the Pee Posh wetlands in conformance to the Bald and Golden Eagle Protection Act. Drainage patterns would not be diverted from their downstream connection on the Gila River Indian Community. The drainage features of the E1 Alternative would be designed such that drainage basins and channels on the north side of the freeway would collect runoff from the freeway and allow suspended sediment to settle. As the system continues to receive runoff, the basins and channels would overflow into channels that would direct flows under the freeway and onto Gila River Indian Community land in the same location as existing drainages from the South Mountains are occurring (see page 4-98 of the Final Environmental Impact Statement).

Code	Comment Document
	Attachment South Mountain (Loop 202) July 11, 2013 Arizona Interagency Desert Tortoise Team. 2000. Averill-Murray, R.C., (ed.). Status of the Sonoran population of the desert tortoise in Arizona: an update. Arizona Interagency Desert Tortoise Team and Arizona Game and Fish Department, Phoenix, AZ, USA. Berry, K.H. 1986a. Desert tortoise (<i>Gopherus agassizii</i>) research in California. <i>Herpetologica</i> 42:62-67. Berry, K.H. 1986b. Desert tortoise (<i>Gopherus agassizii</i>) relocation: implications of social behavior and movements. <i>Herpetologica</i> 42:113-125. Boarman, W.I. 1991. Effectiveness of fences and culverts for protecting desert tortoises along California State Highway 58: final report on study design. California Energy Commission Contract No. 700-89-007. Boarman, W.I., M. Sazaki, K.H. Berry, G.O. Goodlett, W.B. Jennings, and A.P. Woodman. 1993. Measuring the effectiveness of a tortoise-proof fence and culverts: status report from the first field season. <i>Proceedings of the Desert Tortoise Council Symposium</i> 1992:126-142. Clevenger, A.P., B. Chruszcz, and K.E. Gunson. 2003. Spatial patterns and factors influencing small vertebrate fauna road-kill aggregations. <i>Biological Conservation</i> 109:15-26. Dodd, N. L., J. W. Gagnon, S. Boe, and R. E. Schweinsburg. 2007. Role of fencing in promoting wildlife underpass use and highway permeability. <i>In</i> C. L. Irwin, P. Garrett, and K. P. McDermott, editors. 2007 <i>Proceedings of the International Conference on Ecology and Transportation</i>. Center for Transportation and the Environment, North Carolina State University, Raleigh, USA. Forman, R.T.T., and L.E. Alexander. 1998. Roads and their major ecological effects. <i>Annual Review of Ecology and Systematics</i> 29:207-231. Forman, R.T.T., D. Sperling, J.A. Bissonette, A.P. Clevenger, C.D. Cutshall, V.H. Dale, and L. Fahrig. 2003. <i>Road Ecology: Science and Solutions</i>. Island Press, Washington, DC, USA. Gibbs, J.P., and W.G. Shriver. 2002. Estimating the effects of road mortality on turtle populations. Grandmaison, D. 2012. Wildlife Linkage Research in Pima County – Crossing structures and fencing to reduce wildlife mortality. Arizona Game and Fish Department, Phoenix, Arizona. Grandmaison D. D., M. F. Ingraldi, and F. R. Peck. 2010. Desert tortoise microhabitat selection on the Florence Military Reservation, South-Central Arizona; <i>Journal of Herpetology</i>, 44(4):581-590 Nicholson, L. 1979. The effects of roads on desert tortoise populations. <i>Proceedings of the Desert Tortoise Council Symposium</i> 1978:127-129. <i>Conservation Biology</i> 16:1647-1652. Noss, R.F. 1983. A regional landscape approach to maintain diversity. <i>BioScience</i> 33:700-706.

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Code	Comment Document
	Attachment South Mountain (Loop 202) July 11, 2013 Noss, R.F. 1987. Protecting natural areas in fragmented landscapes. <i>Natural Areas Journal</i> 7:2-13. Noss, R.F., and A.Y. Cooperrider. 1994. <i>Saving Nature’s Legacy: Protecting and Restoring Biodiversity</i>. Island Press, Washington, D.C., USA. Spellerberg, I.F. 1998. Ecological effects of roads and traffic: a literature review. <i>Global Ecology and Biogeography Letters</i> 7:317-333. Taylor, P.D., L. Fahrig, K. Henein, and G. Merriam. 1993. Connectivity is a vital element of landscape structure. <i>Oikos</i> 68:571-573. Trombulak, S.C., and C.A. Frissell. 2000. Review of ecological effects of roads on terrestrial and aquatic communities. <i>Conservation Biology</i> 14:18-30. van der Grift, E. A., F. Ottburg, R. Pouwels, and J. Dirksen. 2012. Multiuse overpasses: does human use impact the use by wildlife? <i>In</i> P. J. Wagner, D. Nelson, and E. Murray, editors. 2011 <i>Proceedings of the International Conference on Ecology and Transportation</i>. Center for Transportation and the Environment, North Carolina State University, Raleigh, USA. von Seckendorff Hoff, K., and R.W. Marlow. 2002. Impacts of vehicle road traffic on desert tortoise populations with consideration of conservation of tortoise habitat in southern Nevada. <i>Chelonian Conservation and Biology</i> 4:449-456. Wilcox, B.A., and D.D. Murphy. 1985. Conservation strategy: the effects of fragmentation on extinction. <i>American Naturalist</i> 125:879-887. References:

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1	4405
	1 forum open, so no build. Do not build Loop 202. Thank
	2 you.
	3 THE FACILITATOR: Thank you.
	4 If there's anyone in the auditorium that would
	5 like to speak, please make sure you're registered at the
	6 front desk. Your name will appear on the screen and
	7 we'll call you up in the order that you register.
	8 Again, if there's anyone in the ballroom who
	9 would like to speak, please make sure you register at the
	10 front desk. Thank you.
	11 Ruben Gallego.
	12 MR. GALLEGO: Hello.
	13 THE FACILITATOR: Mr. Gallego, you have three
	14 minutes, here's the timer. Please begin.
	15 MR. GALLEGO: Thank you. My name is Ruben
	16 Gallego, I'm a resident of South Mountain, I live right
	17 next to the mountain, I'm also the state representative
	18 for the area that would be impacted by this freeway. I
	19 represent the Laveen area, South Mountain, Gila River
	20 Indian Community, as well as portions of the west side of
	21 Phoenix. I'm here in support of the 202 highway, not
	22 only as a resident, but also as a representative of the
	23 people in the district. For years I've been hearing
	24 about complaints in terms of traffic and traffic
	25 congestion. A lot of the jobs that are currently being
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Driver and Nix Court Reporters - (602) 266-6525 www.drivernix.com	

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		Comment noted.

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	1 created in this area -- I'm sorry, that are currently 2 being created in Arizona, especially in Maricopa County, 3 are not in this area and a lot of my families have to 4 drive long ways to get to work, and right now the way to 5 do that is through surface streets and a lot that is 6 taking up a lot of their time in stop-and-go traffic. 7 This highway would make it a lot more convenient for them 8 to actually get to the places of work, employment, as 9 well as healthcare opportunities, which aren't available 10 in this -- right currently in this area. 11 I have ran for office twice and have always 12 talked about the highway and from my understanding of at 13 least the electorate, they are in the positive manner for 14 the construction of this highway. And my personal 15 experience just living down there, we do need the highway 16 to, you know, for one, just for me trying to get in and 17 out of this area is very difficult. If there is any kind 18 of car accident on the I-10 to I-17, a lot of times those 19 state troopers or police will send traffic -- will end up 20 using our roads as traffic relievers, so our roads end up 21 getting congested every time something does happen and, 22 you know, that's not very fair to us. We're trying to 23 live normal lives, but it'll happen at least once a week 24 that if there's a rollover by a truck or something else 25 of that nature, they will be using our surface streets to Page 74 Driver and Nix Court Reporters - (602) 266-6525 www.drivernix.com

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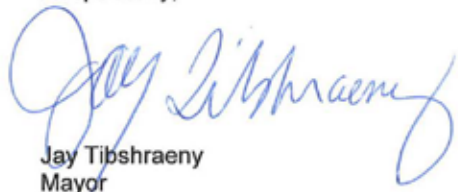
Code	Comment Document
	1 be moving east to west, which would not happen if we had 2 another reliever such as the Loop 202 around the 3 mountain. With that, again, I strongly speak in support 4 of the South Mountain freeway and I hope that we can get 5 it done as soon as possible. Thank you. 6 THE FACILITATOR: Thank you. 7 Rohno Geppert. 8 Mr. Geppert, you have three minutes, here's the 9 timer. 10 MR. GEPPERT: Hello. Thank you for allowing 11 public comment. I appreciate the opportunity to speak. 12 I am in favor of the alternative that connects to the 13 west 101, any of those three alternatives just from a 14 traffic flow perspective. The preferred alternative goes 15 directly into where everything gridlocks at both rush 16 hours, so I would appreciate if it could be moved as far 17 west as possible so that trucks needing to bypass the 18 downtown area won't be a part of the congestion so much 19 as the ones that are currently going to bottleneck if it 20 goes through the 51 corridor. Thank you for the time and 21 I appreciate you taking those thoughts into 22 consideration. 23 THE FACILITATOR: Thank you, sir. 24 Arthur Bivvins. 25 Mr. Bivvins, you have three minutes, here's the Page 75 Driver and Nix Court Reporters - (602) 266-6525 www.drivernix.com

Code	Issue	Response

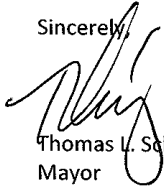
LOCAL AGENCY AND ELECTED OFFICIALS COMMENTS AND RESPONSES

Code	Comment Document
1	 Chandler • Arizona <i>Where Values Make The Difference</i> Jay Tibshraeny <i>Mayor</i> Office of the Mayor <i>Telephone</i> (480) 782-2200 <i>Fax</i> (480) 782-2233 <i>E-mail</i> jay.tibshraeny@chandleraz.gov <i>Twitter</i> http://www.twitter.com/jaytibshraeny <i>Web</i> www.chandleraz.gov <i>Mailing Address</i> Mail Stop 603 PO Box 4008 Chandler, Arizona 85244-4008 <i>Location</i> Fifth Floor 175 South Arizona Avenue Chandler, Arizona 85225 June 25, 2013 ADOT Loop 202 South Mountain Freeway Study 1655 West Jackson Street, MD 126F Phoenix, Arizona 85007 Re: South Mountain Freeway Comments on Environmental Impact Statement Dear Sirs: The City of Chandler would like to express our support for the proposed South Mountain Freeway between Chandler and the West Valley. Chandler residents would benefit greatly by the completion of this Freeway. We believe that is an excellent regional project that has significant congestion and air quality benefits to the entire Phoenix region. Given the magnitude of the regional benefits we fully support the immediate advancement of the design and construction of the South Mountain Freeway. The South Mountain Freeway would provide an alternate route for Chandler and other East Valley drivers to get to the West Valley. Currently, the only choice is to use I-10 through central Phoenix. This section of I-10 is already at or near capacity, resulting in significant traffic delays and a negative impact on regional air quality. The South Mountain Freeway would provide an excellent alternative to the using I-10 through central Phoenix. It is estimated that about 140,000 vehicles per day will utilize the South Mountain Freeway. This shift in traffic will ease congestion on I-10, thus reducing commute times and improve air quality for the entire Valley.  Chandler All-America City 2010 Printed on recycled paper

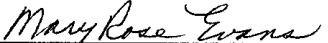
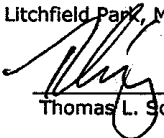
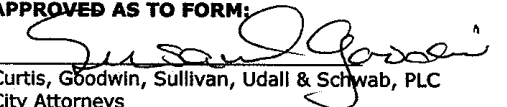
Code	Issue	Response
1		Comment noted.

Code	Comment Document
	June 25, 2013 Page 2 This project was approved by the voters in Maricopa County in 1985 and again in 2004, and has been studied for several years. This construction will create over 10,000 jobs and have \$2 billion investment in the local economy. With the environmental documents concluding that this project benefits the region, it is now time to build the South Mountain Freeway. Respectfully,  Jay Tibshraeny Mayor

Code	Issue	Response

Code	Comment Document
	 THE CITY OF Litchfield Park Office of the Mayor RECEIVED JUN 14 2013 AZ Dept of Transportation Director's Office June 13, 2013 Mr. John Halikowski ADOT Director 206 South 17th Avenue, MD 100A Phoenix, Arizona 85007-3213 Dear Mr. Halikowski: Please accept this letter and the attached resolution as the City of Litchfield Park's participation in the public comment of the South Mountain review process. 1 On May 15, 2013, the City of Litchfield Park City Council adopted Resolution 13-345 to support the citizens of Maricopa County and the passage of Prop 300 and Prop 400 for construction of the South Mountain Freeway. As stated in the Resolution, the Litchfield Park City Council supports the construction of the South Mountain Freeway for the mobility and economic development of the region for future generations. As a personal note, I support the W59 Alternative (Preliminary Preferred) route as the location of the South Mountain Freeway. Thank you for the opportunity to express the views of the Litchfield Park City Council and that of mine as Mayor of Litchfield Park. Sincerely,  Thomas L. Schoaf Mayor cc: Members of Council Enclosure: Resolution 13-345 214 W. Wigwam Boulevard, Litchfield Park, AZ 85340 P 623.935.5033 F 623.935.5427 litchfield-park.org TDD 1.800.367.8939

Code	Issue	Response
1		Comment noted.

Code	Comment Document
	CITY OF LITCHFIELD PARK RESOLUTION NO. 13-<u>345</u> A RESOLUTION OF THE MAYOR AND COMMON COUNCIL OF THE CITY OF LITCHFIELD PARK, ARIZONA, SUPPORTING THE CITIZENS OF MARICOPA COUNTY AND THE PASSAGE OF PROP 300 AND PROP 400 FOR CONSTRUCTION OF THE SOUTH MOUNTAIN FREEWAY. WHEREAS, the South Mountain Freeway has received overwhelming support by the citizens of Maricopa County as part of two regional elections; the Proposition 300 election in 1985 and the Proposition 400 election in 2001, and WHEREAS, the South Mountain Freeway is a legacy project in the Regional Transportation Plan with Identified funding in the Transportation Improvement Program, and WHEREAS, a design concept report was completed by the Arizona Department of Transportation (ADOT) in 1988 defining the alignment for the freeway, and WHEREAS, in 2001, the Federal Highway Administration and ADOT embarked on an Environmental Impact Statement to analyze the purpose and need for the proposed freeway and to study alignments and associated environmental impacts for the freeway and the Draft EIS is now complete for public review and comment; and WHEREAS, the Draft EIS indicates that the freeway will carry traffic in the range of 137,000 to 142,000 vehicles per day by 2030, which is comparable to current use on the Loop 101 and existing segments of the Loop 202, and WHEREAS, the South Mountain Freeway will provide an important link for the Southeast and Southwest Valleys, promoting commerce in both regions of the Valley and helping to avoid the current bottleneck at the Broadway curve on Interstate 10, and WHEREAS, many West Valley local municipalities, businesses, and residents have been proactive participants and supporters of the South Mountain Freeway project which will mitigate traffic congestion and stimulate economic growth in the Region, and WHEREAS, not building the South Mountain Freeway will contribute to increased congestion on local arterial roadways such as Baseline, Southern and Broadway Roads, and WHEREAS, an alternative route is needed to Interstate 10 when accidents occur which occasionally close Interstate 10 for several hours at a time, NOW THEREFORE, BE IT RESOLVED THAT THE CITY OF LITCHFIELD PARK supports the construction of the South Mountain Freeway for the mobility and economic development of the region for future generations. PASSED AND ADOPTED by the Common Council of the City of Litchfield Park, Maricopa County, Arizona, this <u>15th</u> day of <u>MAY</u>, 2013. ATTEST:  Mary Rose Evans, MMC, City Clerk  Thomas L. Schoaf, Mayor APPROVED AS TO FORM:  Curtis, Goodwin, Sullivan, Udall & Schwab, PLC City Attorneys By: Susan D. Goodwin

Code	Issue	Response

Code	Comment Document
	 THE CITY OF Litchfield Park Office of the City Manager RECEIVED JUN 14 2013 AZ Dept of Transportation Director's Office June 13, 2013 Mr. John Halikowski ADOT Director 206 South 17th Avenue, MD 100A Phoenix, Arizona 85007-3213 Dear Mr. Halikowski: As City Manager for the City of Litchfield Park, I want to express my appreciation for the opportunity to participate in the public comment for the support of the South Mountain Freeway. The South Mountain Freeway will provide an important link for the Southeast and Southwest Valleys, promoting commerce in both regions of the Valley and help to resolve the current bottleneck at the Broadway curve and Interstate 10. Upon reviewing the proposed alternations for the South Mountain Freeway, I believe that the W59 Alternative (Preliminary Preferred) best suits the needs of the region and is the best alignment when considering all the contributing factors. Thank you for the opportunity to participate in the public comment for the support of the South Mountain Freeway. Sincerely,  Darryl H. Crossman City Manager cc: Mayor Thomas L. Schoaf Members of Council 214 W. Wigwam Boulevard, Litchfield Park, AZ 85340 P 623.935.5033 F 623.935.5427 litchfield-park.org TDD 1.800.367.8939

Code	Issue	Response
1		Comment noted.

Code Comment Document

City of Phoenix

Street Transportation Department, 200 W. Washington St., Phoenix, AZ 85003
Phone: (602) 262-6284 Fax: (602) 495-2016

To: South Mountain Study Team
Arizona Department of Transportation
1655 West Jackson Street, MD 126F
Phoenix, Arizona 85007

Date: June 12, 2013

From: Ray Dovalina, P.E.
Assistant Director
Street Transportation Department
200 W. Washington Street Fifth Floor
Phoenix, AZ 85003

Subject: REVIEW OF THE LOCATION/DCR AND EIS FOR THE SR LOOP 202 (SOUTH MOUNTAIN FREEWAY)

The City of Phoenix has reviewed the Initial Location/Design Concept Report (DCR) and Draft Environmental Impact Statement (EIS) for State Route Loop 202 (South Mountain Freeway) Interstate 10 (Maricopa Freeway) to Interstate 10 (Papago Freeway) and has prepared a list of questions, comments and concerns that address public transportation and development of this freeway.

In general, the City of Phoenix concurs with the overall findings in the Initial DCR and Draft EIS and fully supports the recommended Preferred Alternative W59 Alignment for the proposed SR Loop 202. There are, however, specific areas of concern along the preferred alignment that impact various upcoming City funded projects and Phoenix area residents that should be considered and factored into the project as the final reports are developed. These include the following:

SR Loop 202 (South Mountain Freeway): Location/Design Concept Report Street Transportation Department

General Comments

- Proposed traffic interchanges should be consistent with the most current City Street Classification Map, lane assignments, and cross sections.
- Procurement of the overall project, should consider possible City interaction for planning, designing and constructing cross roads to accommodate new traffic

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JUL 18 2013

URBAN PROJECT MANAGEMENT GROUP

Code	Issue	Response
1	Design	Comments received that are specific to the South Mountain Freeway Location/ Design Concept Report have been forwarded to the design team for response in the South Mountain Freeway Location/Design Concept Report comment resolution process. As appropriate, responses to these comments are included in this document. Draft Environmental Impact Statement comments are addressed below.
2	Design	Page 3-51 of the Final Environmental Impact Statement includes information related to proposed traffic interchanges. Coordination with the City would continue through final design to ensure consistency between the proposed freeway and City road network.
3	Design	Coordination with the City would continue through final design to ensure consistency between the proposed freeway and City road network. Enhancement opportunities are discussed on page 3-60 of the Final Environmental Impact Statement.

Code	Comment Document
	Review of Initial Location/DCR and DEIS for State Route 202L (South Mountain Freeway) Interstate 10 (Maricopa Freeway) to Interstate 10 (Papago Freeway) Page 2 interchanges. City would coordinate with ADOT and the selected project delivery team to accommodate cross street improvements at the proposed interchanges. 4 - Provide pedestrian connectivity where possible across the proposed freeway. 1) Area Bounded By: 63rd Ave and 59th Ave, and Broadway Rd to Elwood St 2) Pedestrian/Bicycle connection to the Laveen Convenyance Channel (LACC) <u>Street Transportation – Design and Construction Management Division</u> 5 The City has a programmed construction project FY 2014/2015 at Baseline and Buckeye Road that may conflict with the SR Loop 202 alignment at 56th Avenue. At Baseline Road, there may be some encroachment in the ADOT Right of Way. At Buckeye Road, there are utility conflicts with Maricopa County land and Salt River Project and close coordination will be needed to construct these projects. SR Loop 202 (South Mountain Freeway): Location/Design Concept Report Public Transit Department (Page ES-3) DHOV flyover ramps at the I-10 Papago Freeway) will provide direct HOV access to Downtown Phoenix and the Capitol for buses, carpools, and vanpools. (Plan Sheet, I-10 Sta. 7284+00 to 7340+00) It appears that access to a future station and park-and-ride for the Capitol/I-10 West LRT line at 59th Avenue/I-10 can be achieved by using the small off-ramp at Roosevelt to connect with Roosevelt Street and NB 59th Avenue. Please verify. (Page 2-16) Develop a DHOV ramp at 40th Street to provide a stronger, more convenient connection to SR Loop 202 and I-10 NB for RAPID I-10 East buses traveling from the Pecos/40th Street Park-and-Ride. In addition, if spacing does not permit a DHOV ramp, provide a bus-only bypass through any on-ramp metering. - A future park-and-ride at Baseline Road and SR Loop 202 is a key component of future commuter service in this part of Phoenix. The facility is currently in the Transportation Improvement Plan and the City of Phoenix Capital Improvement Plan. Close coordination should occur between City of Phoenix Street Transportation and Public Transit departments and ADOT to secure land as part of this project. This park-and-ride would service the far western leg of the South Mountain RAPID bus rapid transit corridor. It could also provide connections to local bus service as well as a connector route to the future 59th Avenue/I-10 LRT station. A DHOV connection to NB SR Loop 202 should augment the development of this facility to provide a convenient route for buses and eliminate the need to weave through traffic into the HOV lane. 6 7 8 9

Code	Issue	Response
4	Design	Coordination with the City would continue through final design to ensure consistency between the proposed freeway and City road network. Enhancement opportunities are discussed on page 3-60 of the Final Environmental Impact Statement.
5	Design	Coordination with the City would continue through final design to ensure consistency between the proposed freeway and City road network. Potential utility impacts are discussed beginning on page 4-175 of the Final Environmental Impact Statement.
6	Design	Yes, more information related to the system traffic interchange is provided beginning on page 3-48 of the Final Environmental Impact Statement.
7	Design	Currently, no off-ramps are planned at Roosevelt Street. Coordination with the City and Valley Metro would continue through final design. Enhancement opportunities are discussed on page 3-60 of the Final Environmental Impact Statement.
8	Design	Currently, there are not plans for direct high-occupancy vehicle ramps connecting to the 40th Street park-and-ride lot due to right-of-way constraints. There is a planned connection from the westbound on-ramp to the south entrance. Coordination with the City and Valley Metro would continue through final design to identify opportunities for integrating transit facilities. Enhancement opportunities are discussed on page 3-60 of the Final Environmental Impact Statement.
9	Design	Currently, there are not plans for direct high-occupancy vehicle ramps connecting to the future Baseline Road park-and-ride lot. Coordination with the City and Valley Metro would continue through final design to identify opportunities for coordinating land acquisition and integrating transit facilities. Enhancement opportunities are discussed on page 3-60 of the Final Environmental Impact Statement.

Code	Comment Document
	Review of Initial Location/DCR and DEIS for State Route 202L (South Mountain Freeway) Interstate 10 (Maricopa Freeway) to Interstate 10 (Papago Freeway) Page 3
10	(Page 3-14) Provisions should be made for a DHOV connection to link SR Loop 202 with I-10 (Maricopa Freeway). These improvements should be made all at once to minimize disruption and address community concerns (Page 1-1).
11	(Page 3-14) Provide more description, location and results of the coordination activity between ADOT and METRO in the I-10 (Papago Freeway) corridor.
11	(Page 3-15) Proposed system interchange modification should correspond with future Capitol/I-10LRT improvements to the interchanges (67th, 59th and 51st avenues) to minimize future disruption. This would impact the north portion of the interchanges and potentially bridges.
9	Develop a DHOV ramp at Baseline Road to provide a stronger, more convenient connection to NB SR Loop 202 for buses traveling from the future 59th Avenue Park-and-Ride. In addition, if spacing does not permit a DHOV ramp, provide a bus-only bypass through any on-ramp metering for NB buses.
12	(Guide Signing Plan) Provide appropriate overhead structure and way finding signage for the Pecos/40th Street Park-and-Ride (existing) and the future Baseline Road/SR Loop 202 Park-and-Ride. The overhead would be placed in the freeway and the smaller green way finding signs would be located on the off ramps and adjacent major streets. This is a similar scenario found in other areas of Phoenix.
	SR Loop 202 (South Mountain Freeway): Draft Environmental Impact Statement and Section 4(f) Evaluation
13	Pg. 1-14, Will this be a truck bypass route in lieu of all the truck accidents in the Central City? Could this section reference 3-64 "Trucking in the MAG region".
14	- Pg. 3-6, Regarding the light rail being eliminated from further study. With savings from the W59 Alternate (Pg. 3-69 Estimated Costs) can this study be furthered due to the public comments on Pg. 6-22, multimodal options, Consideration of multimodal alternatives, to include Bus Rapid Transit (bus only lane) and other options? - Pg. 3-23, Regarding W59 Alternate frontage road sections. How would business access on the frontage roads be determined? Is an Access Control determination required? - Pg. 4-28, "The ADOT Right-of-Way Group would coordinate the design phase to designate necessary utility corridors..." Is there potential to designate excess land in utility corridors for transit uses? (Example: Happy Valley Road/I-17 Park and Ride).

Code	Issue	Response
10	Design	Currently, there are not plans for direct high-occupancy vehicle ramps connecting the South Mountain Freeway to Interstate 10 (Maricopa Freeway). There are direct ramps from the Santan Freeway to Interstate 10, as planned in the <i>Regional Transportation Plan</i> . Coordination with the City and Valley Metro would continue through final design to identify opportunities for integrating transit facilities. Enhancement opportunities are discussed on page 3-60 of the Final Environmental Impact Statement.
11	Agency Coordination	Coordination has included attendance at agency progress meetings, review and comment on planning documents, and sharing of design layouts. Coordination is ongoing and would continue through final design to identify opportunities for integrating transit facilities. However, no high occupancy vehicle lane connections are planned at 67th, 59th, and 51st avenues.
12	Agency Coordination	As design progresses, details such as these would be finalized in coordination with local and regional agencies. Information related to signs is provided on page 3-58 of the Final Environmental Impact Statement.
13	Trucks	As pointed out on page 3-64 of the Draft and Final Environmental Impact Statements, in the section entitled, <i>Trucking in the MAG Region</i> , and supported by conclusions throughout Chapter 1, <i>Purpose and Need</i> , the proposed action is needed to address regional traffic congestion attributable to all vehicular types using the regional travel network. As noted on page 3-64 of the Draft and Final Environmental Impact Statements, it is recognized that trucks would use the proposed action to move the goods and services necessary for the region's economy. As described, a truck bypass route of the metropolitan area is signed and posted using Interstate 8, State Route 85, and Interstate 10.
14	Alternatives	Public comment pertinent to multimodal options as referenced on page 6-22 of the Draft and Final Environmental Impact Statements does not reference specific consideration of bus rapid transit (bus-only lane) and other options as implied in the comment. The text actually references light rail as a consideration. The reasons for elimination of this option as well as other modal alternatives are presented in Table 3-2, <i>Nonfreeway Alternatives Considered and Reasons for their Elimination from Further Study</i>, on page 3-5 of the Draft and Final Environmental Impact Statements, in related text on pages 3-5 and 3-6, and in supporting appendices. The transit alternatives accounted for expanded services beyond those provided under programmed funding in the <i>Regional Transportation Plan</i> to account for consideration of best-case transit scenarios. Alternative represented a range of reasonable alternatives that were the subject of detailed study in the Draft Environmental Impact Statement and subsequent Final Environmental Impact Statement. The new Maricopa Association of Governments socioeconomic and traffic projections for Maricopa County were used to determine whether the proposed freeway was still the type and mode of transportation improvement that would best meet the purpose and need criteria for the proposed action. The modeling analysis conducted for the Draft Environmental Impact Statement was updated using 2013 Maricopa Association of Governments projections for 2035. Traffic volumes, traffic conditions, travel distribution, capacity deficiencies, and travel time were reanalyzed to evaluate the alternatives considered in terms of responsiveness to purpose and need criteria. The new socioeconomic and traffic projections, while generally lower than what was previously predicted, still support

(Response 14 continues on next page)

Code	Comment Document
	Review of Initial Location/DCR and DEIS for State Route 202L (South Mountain Freeway) Interstate 10 (Maricopa Freeway) to Interstate 10 (Papago Freeway) Page 3 • (Page 3-14) Provisions should be made for a DHOV connection to link SR Loop 202 with I-10 (Maricopa Freeway). These improvements should be made all at once to minimize disruption and address community concerns (Page 1-1). • (Page 3-14) Provide more description, location and results of the coordination activity between ADOT and METRO in the I-10 (Papago Freeway) corridor. • (Page 3-15) Proposed system interchange modification should correspond with future Capitol/I-10LRT improvements to the interchanges (67th, 59th and 51st avenues) to minimize future disruption. This would impact the north portion of the interchanges and potentially bridges. • Develop a DHOV ramp at Baseline Road to provide a stronger, more convenient connection to NB SR Loop 202 for buses traveling from the future 59th Avenue Park-and-Ride. In addition, if spacing does not permit a DHOV ramp, provide a bus-only bypass through any on-ramp metering for NB buses. • (Guide Signing Plan) Provide appropriate overhead structure and way finding signage for the Pecos/40th Street Park-and-Ride (existing) and the future Baseline Road/SR Loop 202 Park-and-Ride. The overhead would be placed in the freeway and the smaller green way finding signs would be located on the off ramps and adjacent major streets. This is a similar scenario found in other areas of Phoenix. SR Loop 202 (South Mountain Freeway): Draft Environmental Impact Statement and Section 4(f) Evaluation • Pg. 1-14, Will this be a truck bypass route in lieu of all the truck accidents in the Central City? Could this section reference 3-64 "Trucking in the MAG region". • Pg. 3-6, Regarding the light rail being eliminated from further study. With savings from the W59 Alternate (Pg. 3-69 Estimated Costs) can this study be furthered due to the public comments on Pg. 6-22, multimodal options, Consideration of multimodal alternatives, to include Bus Rapid Transit (bus only lane) and other options? • Pg. 3-23, Regarding W59 Alternate frontage road sections. How would business access on the frontage roads be determined? Is an Access Control determination required? • Pg. 4-28, "The ADOT Right-of-Way Group would coordinate the design phase to designate necessary utility corridors..." Is there potential to designate excess land in utility corridors for transit uses? (Example: Happy Valley Road/I-17 Park and Ride).

Code	Issue	Response
14 (cont.)		the overall conclusions of the Draft Environmental Impact Statement in terms of purpose and need, evaluation of lane and alignment changes, responsiveness of the proposed freeway to purpose and need, and traffic conditions with the action and No-Action alternatives. The W59 Alternative in combination with the E1 Alternative was identified as the Preferred Alternative. The analyses and conclusions are reflected in the Final Environmental Impact Statement (see Chapter 3, <i>Alternatives</i>).
15	Design	As described in the Draft and Final Environmental Impact Statements on page 3-23 in the section, <i>Alignment Description</i> , the frontage roads would allow direct access to properties, which would include business properties. The specifics of how access would be provided would be determined during the final design process on a property-by-property basis in collaboration with City of Phoenix staff, property owners, and other appropriate stakeholders. Generally, the description of alternatives must be developed to a sufficient level to allow for meaningful comparison of alternatives but not be so specific in design as to limit flexibility in minor changes in design after completion of the environmental impact statement process. In text beginning on pages 4-45 and page 4-51 of the Draft and Final Environmental Impact Statements, respectively, under the section, <i>Displacements and Relocations</i> , further information is provided describing the Arizona Department of Transportation responsibilities in providing access to adjacent properties.
16	Design	Yes, there is a potential to examine the possibility of using excess lands for transit uses. Consideration of this possibility has been a common practice for other major transportation facilities in the metropolitan area. In text beginning on pages 4-45 and page 4-51 of the Draft and Final Environmental Impact Statements, respectively, under the section, <i>Displacements and Relocations</i> , mitigation is presented to coordinate with local jurisdictions to use excess lands for alternative public uses. The discussion of enhancement opportunities is further described in the Draft and Final Environmental Impact Statements on page 3-60 in the section, <i>Enhancement Opportunities</i> .

Code	Comment Document
	Review of Initial Location/DCR and DEIS for State Route 202L (South Mountain Freeway) Interstate 10 (Maricopa Freeway) to Interstate 10 (Papago Freeway) Page 4
17	• Include car ownership and transit-dependency in the demographic figures in maps 4-10 through 4-14.
18	• Pg. S-36 and 3-69 "The W59 Alternative would provide more direct access to downtown Phoenix." Add to this point, ability to make convenient connections to all transit modes and routes in the central city.
19	• Pg. 3-38 Decisional Criterion, "What other general transportation effects would the proposed freeway have?" Can this bullet point be expounded on, possibly adding specifics to the opportunities for freeway transit services, such as specific locations for park-and-ride lots adjacent to the freeway, addition of HOV lane access for express/rapid bus routes, further study of ROW for rail, etc.
20	• Table 1-2 under Transit, provide a summary of the T2000 Tax/Plan, include detailed language such as 4/10 of a percent sales tax, 20 year life of tax, Federal Funding match, and estimated \$200 million for bus and \$600 million for light rail.
21	• Pg. 3-52 Right-of-way needed for Action Alternatives, add a point about right-of-way for transit purposes.
22	• Figure 3-29 add dashed line depicting future Capital /I-10 LRT on north side of I-10. • Pg. 3-60 Enhancement Opportunities, this area should be expanded with more detail about how the excess R/W may be suitable for other public infrastructure projects such as park-and-ride lots. • Figure 4-4 Planned Developments 2009 map shows the abundance of Residential near the W59 Alternative and Baseline Road. A park-and-ride in the area works well with the General Plan by focusing park-and-ride location near residential use and the Laveen Village Core. SR Loop 202 (South Mountain Freeway): Location/Design Concept Report Parks and Recreation Department • Page 5-1 Incorrect reference to Section 4(f) in first paragraph. • Page 5-8/9 Figure 5-5 should include Laveen Area Conveyance Channel (LACC) trails and for parks on Figure 5-7. • Page 5-12 Three City of Phoenix undeveloped park sites are missing: 59th Ave/Olney - APN 300-02-060 and 55th Ave/Gwen St - APNs 300-13-810 and 300-13-792 • Page 5-15 Figure 5-8 graphics are located in the wrong areas in numerous instances and some a noted as being outside the park. The trails represented on this figure are not accurate or current. • Page 5-20 Center column, second paragraph should read: "The Tunnel Alternatives do not..."

Code	Issue	Response
17	Social Conditions	The maps were created to represent environmental justice populations as defined by Arizona Department of Transportation policy (see page 4-29 of the Final Environmental Impact Statement). These populations include concentrations of minority, low-income, elderly, disabled, and female head-of-household populations. In addition, minority populations as defined by Title VI of the Civil Rights Act of 1964 are represented in the maps.
18	Alternatives	Text repeated on pages S-36, 3-68, and 3-69 of the Draft Environmental Impact Statement and pages S-35, 3-68 and 3-69 of the Final Environmental Impact Statement presents the logic supporting the identification of the W59 Alternative as the Preferred Alternative. Other points are made in support of the identification, specifically, "The W59 Alternative would better link the southern areas of the region with the central metropolitan area and would provide an alternative route to I-10 [Interstate 10] for regional connectivity" and "The W59 Alternative would be more consistent with local and regional transportation plans, including the RTP [<i>Regional Transportation Plan</i>]." Both points directly imply benefits for transit modes and routes. Further, discussion on pages 4-167 and 4-179 of the Draft and Final Environmental Impact Statements, respectively, under the section, <i>Induced Travel</i> , discusses cyclical benefits to transit modes resulting from the proposed action.
19	Alternatives	On page 3-38 of the Draft and Final Environmental Impact Statements, Table 3-9, <i>Implementation of the Proposed Freeway as the Appropriate Modal Alternative to Satisfy Purpose and need Criteria, 2035</i> , concludes that the proposed freeway, "Would provide opportunities for freeway-dependent transit services." This is an encompassing statement and addresses the comment sufficiently. The discussion of enhancement opportunities is further described on page 3-60 in the section, <i>Enhancement Opportunities</i> , in the Draft and Final Environmental Impact Statements.
20	Purpose and Need	The suggested language to be added is not consistent with the table subject matter of <i>Regional Transportation Plan</i> highlights.
21	Alternatives	Right-of-way needed for the proposed action would be used for the purpose of placing a freeway through the Study Area. The acquisition of additional right-of-way beyond that needed for the freeway for the purposes of transit use (beyond the high-occupancy lanes in the proposed action) as implied in the comment is beyond the scope of the proposed action.
22	Alternatives	The comment refers to the Location/Design Concept Report prepared for the proposed freeway. The 2014 Maricopa Association of Governments <i>Regional Transportation Plan 2035</i> , pages 10 to 14, includes regional funding for the completion of five additional light rail transit segments on the system. The figure will be modified in the Location/Design Concept Report to show the planned improvement accordingly.

Code	Comment Document
	Review of Initial Location/DCR and DEIS for State Route 202L (South Mountain Freeway) Interstate 10 (Maricopa Freeway) to Interstate 10 (Papago Freeway) Page 4 • Include car ownership and transit-dependency in the demographic figures in maps 4-10 through 4-14. • Pg. S-36 and 3-69 “The W59 Alternative would provide more direct access to downtown Phoenix.” Add to this point, ability to make convenient connections to all transit modes and routes in the central city. • Pg. 3-38 Decisional Criterion, “What other general transportation effects would the proposed freeway have?” Can this bullet point be expounded on, possibly adding specifics to the opportunities for freeway transit services, such as specific locations for park-and-ride lots adjacent to the freeway, addition of HOV lane access for express/rapid bus routes, further study of ROW for rail, etc. • Table 1-2 under Transit, provide a summary of the T2000 Tax/Plan, include detailed language such as 4/10 of a percent sales tax, 20 year life of tax, Federal Funding match, and estimated \$200 million for bus and \$600 million for light rail. • Pg. 3-52 Right-of-way needed for Action Alternatives, add a point about right-of-way for transit purposes. • Figure 3-29 add dashed line depicting future Capital /I-10 LRT on north side of I-10. • Pg. 3-60 Enhancement Opportunities, this area should be expanded with more detail about how the excess R/W may be suitable for other public infrastructure projects such as park-and-ride lots. • Figure 4-4 Planned Developments 2009 map shows the abundance of Residential near the W59 Alternative and Baseline Road. A park-and-ride in the area works well with the General Plan by focusing park-and-ride location near residential use and the Laveen Village Core. SR Loop 202 (South Mountain Freeway): Location/Design Concept Report Parks and Recreation Department • Page 5-1 Incorrect reference to Section 4(f) in first paragraph. • Page 5-8/9 Figure 5-5 should include Laveen Area Conveyance Channel (LACC) trails and for parks on Figure 5-7. • Page 5-12 Three City of Phoenix undeveloped park sites are missing: 59th Ave/Olney - APN 300-02-060 and 55th Ave/Gwen St - APNs 300-13-810 and 300-13-792 • Page 5-15 Figure 5-8 graphics are located in the wrong areas in numerous instances and some a noted as being outside the park. The trails represented on this figure are not accurate or current. • Page 5-20 Center column, second paragraph should read: “The Tunnel Alternatives do not...”

Code	Issue	Response
23	Design	Sufficient detail is provided in the Draft and Final Environmental Impact Statements regarding the subject matter. The possibility of using excess lands for transit uses would be considered through the design process. Consideration of this possibility has been a common practice for other major transportation facilities in the metropolitan area. In text beginning on page 4-45 and page 4-51 of the Draft and Final Environmental Impact Statements, respectively, under the section, <i>Displacements and Relocations</i> , mitigation is presented to coordinate with local jurisdictions to use excess lands for alternative public uses. The discussion of enhancement opportunities is further described on page 3-60 in the section, <i>Enhancement Opportunities</i> , in the Draft and Final Environmental Impact Statements.
24	Design	Compatibility of a public land use such as a park-and-ride facility with other land uses (both existing and planned) is a local jurisdictional issue associated with land use planning. The possibility of using excess lands for transit uses would be considered through the design process. Consideration of this possibility has been a common practice for other major transportation facilities in the metropolitan area. In text beginning on page 4-45 and page 4-51 of the Draft and Final Environmental Impact Statements, respectively, under the section, <i>Displacements and Relocations</i> , mitigation is presented to coordinate with local jurisdictions to use excess lands for alternative public uses. Also, text in the section, <i>Enhancement Opportunities</i> , on page 3-60 of the Draft and Final Environmental Impact Statements, provides additional information regarding enhancement opportunities associated with the proposed action.
25	Section 4(f) and Section 6(f)	The reference on page 5-1 of the Draft Environmental Impact Statement is correct. The reference to Section 4(f) is referring to the situation where a Section 4(f) resource, such as the Phoenix South Mountain Park/Preserve, received Land and Water Conservation Fund Act assistance.
26	Section 4(f) and Section 6(f)	The Laveen Area Conveyance Channel’s primary purpose is not recreation, but flood control; therefore, the channel does not qualify for protection under Section 4(f).
27	Section 4(f) and Section 6(f)	These undeveloped parks were added to Figure 5-7 on pages 5-12 and 5-13 of the Final Environmental Impact Statement. As noted on page 5-13 of the Final Environmental Impact Statement, these parks would be avoided by the proposed freeway.
28	Section 4(f) and Section 6(f)	The trail information shown in Figure 5-8 on page 5-15 of the Draft Environmental Impact Statement was digitized from a City of Phoenix pamphlet obtained at Phoenix South Mountain Park/Preserve. Information in Figure 5-8 on page 5-15 of the Final Environmental Impact Statement was obtained from a detailed Phoenix South Mountain Park/Preserve hiking map. On August 15, 2013, a Phoenix South Mountain Park/Preserve Ranger confirmed that this information reflects current conditions.
29	Section 4(f) and Section 6(f)	On page 5-20 of the Final Environmental Impact Statement, the sentence was changed from: “The Tunnel Alternatives do no avoid direct use of a resource afforded protection under Section 4(f), the desired outcome of this alternative development.” to: “The Tunnel Alternatives would not avoid direct use of a resource afforded protection under Section 4(f), the desired outcome of this alternative development.”

Code	Comment Document
	Review of Initial Location/DCR and DEIS for State Route 202L (South Mountain Freeway) Interstate 10 (Maricopa Freeway) to Interstate 10 (Papago Freeway) Page 5
30	- Page 5-23 Last column, first paragraph add the Phoenix Parks and Recreation Board. - Page 5-24 Last column, second paragraph add the Phoenix Parks and Recreation Board. - Page 5-25 First column and second column add the Phoenix Parks and Recreation Board where advisory groups are mentioned. Also, the center column and continuing to the last column, last sentence is not a factual statement. Trails are near the larger of the two cuts for the proposed project within SMPP and these cuts will be visible from both trails and from San Juan Road. SR Loop 202 (South Mountain Freeway): Location/Design Concept Report Water Services Department - Page ES-1 : Table ES.1 lists several COP Streets project but no WSD projects. We have a couple in the area. - Page 3-31/3-32 Correct zip code to 85003 - Page 3-32: How will gravity sewers span on the bridges? Most are deep and may be below the proposed freeway. Confirm in design. - Page 3-32: Funding was added for Storm Drain siphons? COP does not like sewer siphons. - Page 3-32: Note for large diameter water mains that are PCCP (Prestressed Concrete Cylinder Pipe). COP requires 4' undisturbed soil to be maintained in all directions around the main. These are sensitive pipes that get structural support for the soil. Additionally, all pipes need to be checks for additional loading with changes in the fill or removal of existing fill. - Page 3-32: Same as above for water relocations. Is the contingency item storm drain siphons or vertical relocations of water mains? - Page 3-36: Can you please provide me a copy of the Blasting Issues with the City of Phoenix South Mountain Water Transmission Main Report? <u>Appendix A:</u> - Add water and sewer mains to plan and profile sheets. - Extra protection will be required around all Prestressed Concrete Cylinder Pipe (PCCP) water mains. - Mains will require evaluations for fill and cut situations. - Coordination will be required for bridge and wall footings and loading around mains. - Several locations will require removal and new w/s mains as structures are removed with the new ROW. - WSD is in design for a new 36" water main to be located in Buckeye Rd. Construction is anticipated to start in the next year. - Continued coordination will be required as the freeway design progress
31	

Code	Issue	Response
30	Section 4(f) and Section 6(f)	On page 5-23 of the Final Environmental Impact Statement, the bullet was changed from: “During the design phase, ADOT would consult directly with the Phoenix City Manager’s office to identify and implement other design measures, when possible, to further reduce land needed for the proposed action. The City Manager’s office represents its constituents, including the Sonoran Preserve Advisory Committee, Phoenix Mountains Preservation Council, Mountain Bike Association of America, and Arizona Horsemen’s Association.” to: “During the design phase, ADOT would consult directly with the Phoenix City Manager’s office to identify and implement other design measures, when possible, to further reduce land needed for the proposed action. The City Manager’s office represents its constituents, including the Sonoran Preserve Advisory Committee, Phoenix Mountains Preservation Council, Mountain Bike Association of America, Phoenix Parks and Recreation Board, and Arizona Horsemen’s Association.”
31	Section 4(f) and Section 6(f)	On page 5-24 of the Final Environmental Impact Statement, the bullet was changed from: “During this period, ADOT would consult directly with the Phoenix City Manager’s office in representing City of Phoenix interests and on behalf of the Sonoran Preserve Advisory Committee and Phoenix Mountains Preservation Council in establishing a slope treatment plan for cut slopes through the ridgelines, with the clear intent to blend as well as would be possible the cut slopes with the South Mountains’ natural setting.” to: “During this period, ADOT would consult directly with the Phoenix City Manager’s office in representing City of Phoenix interests and on behalf of the Sonoran Preserve Advisory Committee, Phoenix Parks and Recreation Board, and Phoenix Mountains Preservation Council in establishing a slope treatment plan for cut slopes through the ridgelines, with the clear intent to blend as well as would be possible the cut slopes with the South Mountains’ natural setting.”

Code	Comment Document
32	Review of Initial Location/DCR and DEIS for State Route 202L (South Mountain Freeway) Interstate 10 (Maricopa Freeway) to Interstate 10 (Papago Freeway) Page 5 - Page 5-23 Last column, first paragraph add the Phoenix Parks and Recreation Board. - Page 5-24 Last column, second paragraph add the Phoenix Parks and Recreation Board. - Page 5-25 First column and second column add the Phoenix Parks and Recreation Board where advisory groups are mentioned. Also, the center column and continuing to the last column, last sentence is not a factual statement. Trails are near the larger of the two cuts for the proposed project within SMPP and these cuts will be visible from both trails and from San Juan Road. SR Loop 202 (South Mountain Freeway): Location/Design Concept Report Water Services Department - Page ES-1 : Table ES.1 lists several COP Streets project but no WSD projects. We have a couple in the area. - Page 3-31/3-32 Correct zip code to 85003 - Page 3-32: How will gravity sewers span on the bridges? Most are deep and may be below the proposed freeway. Confirm in design. - Page 3-32: Funding was added for Storm Drain siphons? COP does not like sewer siphons. - Page 3-32: Note for large diameter water mains that are PCCP (Prestressed Concrete Cylinder Pipe). COP requires 4' undisturbed soil to be maintained in all directions around the main. These are sensitive pipes that get structural support for the soil. Additionally, all pipes need to be checks for additional loading with changes in the fill or removal of existing fill. - Page 3-32: Same as above for water relocations. Is the contingency item storm drain siphons or vertical relocations of water mains? - Page 3-36: Can you please provide me a copy of the Blasting Issues with the City of Phoenix South Mountain Water Transmission Main Report? <u>Appendix A:</u> - Add water and sewer mains to plan and profile sheets. - Extra protection will be required around all Prestressed Concrete Cylinder Pipe (PCCP) water mains. - Mains will require evaluations for fill and cut situations. - Coordination will be required for bridge and wall footings and loading around mains. - Several locations will require removal and new w/s mains as structures are removed with the new ROW. - WSD is in design for a new 36" water main to be located in Buckeye Rd. Construction is anticipated to start in the next year. - Continued coordination will be required as the freeway design progress

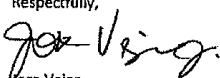
Code	Issue	Response
32	Section 4(f) and Section 6(f)	On page 5-25 of the Final Environmental Impact Statement, the sentence was changed from: “However, for the proposed action through SMPP, ADOT would consult directly with the Phoenix City Manager’s office in representing City of Phoenix interests and on behalf of the Sonoran Preserve Advisory Committee and the Phoenix Mountains Preservation Council and with Community representatives to develop the aesthetic treatment of landscaping and structures through the park/preserve.” to: “However, for the proposed action through SMPP, ADOT would consult directly with the Phoenix City Manager’s office in representing City of Phoenix interests and on behalf of the Sonoran Preserve Advisory Committee, Phoenix Parks and Recreation Board, and the Phoenix Mountains Preservation Council and with Community representatives to develop the aesthetic treatment of landscaping and structures through the park/preserve.” And the bullet was changed from: “During the design phase, ADOT would consult directly with the Phoenix City Manager’s office (which represents its constituents, including the Sonoran Preserve Advisory Committee, Phoenix Mountains Preservation Council, Mountain Bike Association of America, and Arizona Horsemen’s Association), Community delegates, Maricopa County, and assigned staff from the Arizona Department of Public Safety and the Arizona Game and Fish Department (AGFD) to finalize design features and locations of the crossings.” to: “During the design phase, ADOT would consult directly with the Phoenix City Manager’s office (which represents its constituents, including the Sonoran Preserve Advisory Committee, Phoenix Mountains Preservation Council, Mountain Bike Association of America, Phoenix Parks and Recreation Board, and Arizona Horsemen’s Association), Maricopa County, Arizona Department of Public Safety, U.S. Fish and Wildlife Service (USFWS), Arizona Game and Fish Department (AGFD), and the Community’s Department of Environmental Quality to finalize design features and locations of the crossings designed to provide access to SMPP.” On page 5-25 of the Final Environmental Impact Statement, the sentence was changed from: “The cuts would be located in a remote portion of SMPP, not near any trails and barely visible from any of the more readily used trails.” to: “The trails are more than ¼ mile from the alignment. In a remote portion of SMPP, the larger of the two SMPP road cuts would be visible—but not intrusively so—from two secondary trails and from San Juan Road and would be minimally discernible from one of the more heavily used trails.”

Code	Comment Document
	Review of Initial Location/DCR and DEIS for State Route 202L (South Mountain Freeway) Interstate 10 (Maricopa Freeway) to Interstate 10 (Papago Freeway) Page 5 - Page 5-23 Last column, first paragraph add the Phoenix Parks and Recreation Board. - Page 5-24 Last column, second paragraph add the Phoenix Parks and Recreation Board. - Page 5-25 First column and second column add the Phoenix Parks and Recreation Board where advisory groups are mentioned. Also, the center column and continuing to the last column, last sentence is not a factual statement. Trails are near the larger of the two cuts for the proposed project within SMPP and these cuts will be visible from both trails and from San Juan Road. SR Loop 202 (South Mountain Freeway): Location/Design Concept Report Water Services Department 33 34 - Page ES-1 : Table ES.1 lists several COP Streets project but no WSD projects. We have a couple in the area. - Page 3-31/3-32 Correct zip code to 85003 - Page 3-32: How will gravity sewers span on the bridges? Most are deep and may be below the proposed freeway. Confirm in design. - Page 3-32: Funding was added for Storm Drain siphons? COP does not like sewer siphons. - Page 3-32: Note for large diameter water mains that are PCCP (Prestressed Concrete Cylinder Pipe). COP requires 4' undisturbed soil to be maintained in all directions around the main. These are sensitive pipes that get structural support for the soil. Additionally, all pipes need to be checks for additional loading with changes in the fill or removal of existing fill. - Page 3-32: Same as above for water relocations. Is the contingency item storm drain siphons or vertical relocations of water mains? - Page 3-36: Can you please provide me a copy of the Blasting Issues with the City of Phoenix South Mountain Water Transmission Main Report? 35 Appendix A: - Add water and sewer mains to plan and profile sheets. - Extra protection will be required around all Prestressed Concrete Cylinder Pipe (PCCP) water mains. - Mains will require evaluations for fill and cut situations. - Coordination will be required for bridge and wall footings and loading around mains. - Several locations will require removal and new w/s mains as structures are removed with the new ROW. - WSD is in design for a new 36" water main to be located in Buckeye Rd. Construction is anticipated to start in the next year. - Continued coordination will be required as the freeway design progress 34

Code	Issue	Response
33	Design	The list of projects will be updated in the Final Location/Design Concept Report to include the existing and planned Water Services Department projects. Coordination with the City would continue through final design to minimize impacts on City water and sewer facilities.
34	Design	Coordination with the City would continue through final design to minimize impacts on City water and sewer facilities. The comments provided will be considered during the design of the proposed freeway. Information related to the design of the proposed freeway is discussed beginning on page 3-54 of the Draft and Final Environmental Impact Statements.
35	Agency Coordination	A copy of the requested document was provided to the City.

Code	Comment Document
	Review of Initial Location/DCR and DEIS for State Route 202L (South Mountain Freeway) Interstate 10 (Maricopa Freeway) to Interstate 10 (Papago Freeway) Page 6 SR Loop 202 (South Mountain Freeway): Location/Design Concept Report Planning and Development Department 36 - Page 5-7 The owner of the Sachs Webster House is now the City of Phoenix. SR Loop 202 (South Mountain Freeway): Location/Design Concept Report Neighborhood Services Department <u>General Comments</u> 37 - ADOT has a noise mitigaion program and the City request that noise mitigation measuses are taken with the new consturction of SR Loop 202 (South Mountain Freeway). The City received several resident complaints regarding noise when the north SR Loop 202 (Red Mountain Freeway) was built. 38 - An outreach line for the community during the construction of the SR Loop 202 is requested and should be seamless and response turnaround times swift. Also, conducting public outreach during various phases of the project is recommended. 39 - Public art should be incorporated with public involvement on the selection of the art.

Code	Issue	Response
36	Section 4(f) and Section 6(f)	In Figure 5-4 of the Final Environmental Impact Statement, on page 5-7, the last bullet in the Description column has been changed from: “Owned by FCDMCe” to: “Owned by the City of Phoenix” In addition, the footnote “Flood Control District of Maricopa County” was removed and the footnote for “Arizona Department of Transportation” was changed from an “f” to an “e.”
37	Noise	As noted on pages 4-161 and 4-173 of the Draft and Final Environmental Impact Statements, respectively, steps would be taken to minimize noise impacts from construction activities, if an action alternative were selected. These measures would include: • All equipment exhaust systems would be in good working order. • Properly designed engine enclosures and intake silencers would be used. • Equipment would be maintained on a regular basis. • New equipment would be subject to new product emission standards. • Stationary equipment would be located as far away from sensitive receivers as possible. • Construction-related noise generators would be shielded from noise receivers (e.g., use temporary enclosures to shield generators or crushers, take advantage of site conditions to provide topographic separation). • Construction alerts would be distributed to keep the public informed of construction activities and a toll-free number for construction-related complaints would be provided. • During the design phase, hours of operation would be evaluated to minimize disruptions during construction.
38	Public Involvement	During construction, the Arizona Department of Transportation would hold information meetings at the beginning of construction activities regarding the upcoming improvements and work schedules. The public can be informed through construction updates/newsletters, project information hotlines, Web sites, periodic meetings, project offices, and radio and newspaper.
39	Visual	The Arizona Department of Transportation Roadside Development Section is responsible for assigning a wide range of standard treatment applications and wall materials, including color, to noise barriers and other structures. Typically the community where the wall would be constructed would work closely with its City Architect or planning department to decide on a theme for the wall. Usually, this can be accomplished by using the Arizona Department of Transportation’s standard applications. As an example, for State Route 101 Loop (Pima Freeway) in Scottsdale, the City of Scottsdale chose to add public art to the noise barriers. The City’s intent went above and beyond the Arizona Department of Transportation’s guidelines of reasonable aesthetic treatment and, therefore, the Arizona Department of Transportation did not fund the aesthetic portion of the project. The Arizona Department of Transportation and the City of Scottsdale entered into an intergovernmental agreement for the purposes of allowing Scottsdale rights to design and construct artistic embellishment on the Arizona Department of Transportation-supplied noise barrier. The Arizona Department of Transportation provided the funds for construction of the noise barriers themselves, but the City of Scottsdale provided the funds to cover the aesthetic portion of the walls. Draft Environmental Impact Statement pages 4-158 and 4-159 and pages 4-170 and 4-171 of the Final Environmental Impact Statement explain the process municipalities might take to achieve the desired aesthetic treatment for noise barriers or other structures.

Code	Comment Document
	Review of Initial Location/DCR and DEIS for State Route 202L (South Mountain Freeway) Interstate 10 (Maricopa Freeway) to Interstate 10 (Papago Freeway) Page 7 40 Letters from Rio Dell Rey Phase I Community & Riverside Elementary School District No.2 June 24, 2013 RE: Safe Path to School Chaun Hill ADOT 1611 West Jackson Street Phoenix, AZ 85007 By way of introduction, my name is Jose Vejar and I am 10 year resident of the Rio Del Rey community located on 62nd Avenue and Broadway. I would like to express my concern for the safety of the children in our community. With the expansion of the new freeway coming through our community very soon, the freeway will divide both of the communities and will create a hardship for children to get to school safely. I am asking if the ADOT agency to consider the placement of a pedestrian bridge so that children in both Rio Del Rey communities can safely travel from home to school. You consideration and attention to this issue is greatly appreciated. Respectfully,  Jose Vejar Rio Del Rey Phase I Community, 6222 W. Encinas Lane, Phoenix, AZ 85043, (602) 818-4792

Code	Issue	Response
40	Neighborhoods/ Communities	The comment reflects a concern regarding possible impacts on neighborhood cohesion of the Rio Del Rey community in the vicinity of 62nd Avenue and Broadway Road. After passage of Proposition 300 in 1985 (information about Proposition 300 is presented on page 1-9 of the Final Environmental Impact Statement), local jurisdictions, through planning efforts, sought to preserve corridors where segments of the Regional Freeway and Highway System freeways were to be located. As shown in Detail B of Figure 3-32 on page 3-56 of the Final Environmental Impact Statement, <i>Local Street Realignment, W59 Alternative (Preferred Alternative), Western Section</i>, such a swath of land was set aside with the intention that a freeway would pass through the area. The land has been vacant for almost 30 years. The referenced community developed around the planned freeway corridor in phases between 2001 and 2005. This suggests in approving the subdivision, the developers were made aware of the future freeway development and should have disclosed this information to potential homebuyers. Text in the text box entitled <i>Freeway Awareness</i>, beginning on page 4-12 of the Final Environmental Impact Statement, describes the obligation of the local jurisdictions, land developers, and the Arizona Department of Transportation in disclosing information about planned transportation facilities near proposed developments. Therefore, through the phased development of the community on each side of a known, planned-for freeway location, the project developers created a basis for community separation. The corridor is fenced off between 61st and 62nd avenues, and the conversion to the freeway use would not occur until sometime after 2014, if an action alternative were the Selected Alternative. There are two bus routes with stops at 60th Avenue and Elwood Street and 60th Avenue and Warner Street. It is the policy of the school district to discourage children from walking to school (although it is reported that some children still do walk to school) and to bus all the children to school using routes along the major arterial streets. Table 4-9, <i>Impacts on Community Character and Cohesion, Action Alternatives</i>, beginning on page 4-24 of the Final Environmental Impact Statement, addresses community cohesion impacts. Criteria for determining such impacts are presented in the sidebar entitled, <i>Cohesion and character of communities</i>, on page 4-21 of the Final Environmental Impact Statement. It is noted therein that one form of cohesion impact is the elimination of neighborhood access to commercial areas, schools, parks, or other community amenities. In this case, alternative pedestrian access would be provided at the service traffic interchanges and arterial street crossings at Broadway and Lower Buckeye roads (although children walking to school would be discouraged and bus routes provided). Pedestrian facilities provided at those crossings would be designed to meet applicable design standards established in part for the safe use of those facilities, and, therefore, access would not be eliminated. This alternative pedestrian access would be provided during construction and after the freeway were built, if an action alternative were to become the Selected Alternative; however, pedestrian facilities near potential freeway construction would be closed for limited periods of time for safety reasons. Such closures would be temporary and would occur only during construction activities.

Code	Comment Document

Code	Issue	Response
40 (cont.)		Regardless of the subdivision development history and the alternative pedestrian access, additional text was added into Final Environmental Impact Statement Table 4-9 on page 4-24 for the W59 Alternative in the heading column, <i>Effect on Community Cohesion</i> , to read “Would displace residences within the Rio Del Rey subdivision, an area of census blocks that contain minority populations.” In the section, <i>Mitigation</i> , beginning on page 4-23 of the Final Environmental Impact Statement, a measure was added to the text to read “ADOT would coordinate with appropriate City of Phoenix officials during the final design process to consider and identify, if appropriate, enhancements such as a pedestrian overpass to reduce possible pedestrian-related impacts. During that process, if mitigation is warranted, the operations, maintenance, and liabilities of the facilities would be passed on to the local jurisdictions.” The following was added to Table S-4 on page S-18 of the Final Environmental Impact Statement: “ADOT would coordinate with the City of Phoenix to consider and identify, if appropriate, measures to reduce possible pedestrian-related impacts.”

Code	Comment Document
	Review of Initial Location/DCR and DEIS for State Route 202L (South Mountain Freeway) Interstate 10 (Maricopa Freeway) to Interstate 10 (Papago Freeway) Page 8 June 24, 2013 RE: Safe Bridge to School To whom it may concern: By way of introduction, my name is Patty Lopez-Vejar and I am 10 year resident of the Rio Del Rey community located on 62nd Avenue and Broadway. I would like to express my concern for the safety of the children in our community. With the expansion of the new freeway coming through our community very soon, I am asking if the ADOT, City of Phoenix and any other Interested agencies/stakeholders will consider the placement of a pedestrian bridge so that children in both Rio Del Rey communities can safely travel from home to school. You consideration and attention to this issue is greatly appreciated. Respectfully,  Patty Lopez-Vejar Rio Del Rey Phase I Community, 6222 W. Encinas Lane, Phoenix, AZ 85043, (602) 818-4792

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Code	Issue	Response

Code	Comment Document
	Review of Initial Location/DCR and DEIS for State Route 202L (South Mountain Freeway) Interstate 10 (Maricopa Freeway) to Interstate 10 (Papago Freeway) Page 9 Olga Soto/NSD/PHX 06/26/2013 01:44 PM To Myesha Harris/STR/PHX@PHXENT cc bcc Subject Fw: Letter for ADOT Letter regarding the SRTS at Broadway for the Rio del Rey communities. I have another one but am asking for them to send it in PDF. Olga Soto, Neighborhood Specialist City of Phoenix, Neighborhood Services Department 200 West Washington, 4th Floor 602-256-3493 olga.soto@phoenix.gov ----- Forwarded by Olga Soto/NSD/PHX on 06/26/2013 01:39 PM ----- <spence1101@cox.net> 06/26/2013 08:17 PM To Olga Soto/NSD/PHX@PHXENT cc Subject Letter for ADOT Good day, I see a couple major concerns when the 202 goes through our subdivision. One, it the safety of the school children or anyone else that would like to cross the highway. Many student attend school just west of the subdivision. They would have to find a way to walk to school safely. It would create a hardship for students and parents I believe that ADOT should include the SRTS as part of the 202 project. Another concern is the freeway will divide the community. Rio Del Rey is made up of different Phases. Board members of our HOA board come from both Phases. We have community cookouts and gathering that would create problems if one phases couldn't cross the highway safely. Please consider some form of walkway to go over the highway. Thank you Resident of Rio Del Rey subdivision. Susan Young Lot 1122

Code	Issue	Response

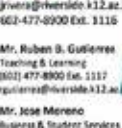
Code	Comment Document
	Review of Initial Location/DCR and DEIS for State Route 202L (South Mountain Freeway) Interstate 10 (Maricopa Freeway) to Interstate 10 (Papago Freeway) Page 10 Olga Soto/NSD/PHX 06/27/2013 09:00 AM To: Myesha Harris/STR/PHX@PHXENT cc bcc Subject: Fw: safe route to school. History: This message has been replied to. Another e-mail regarding the South Mountain Freeway SRTS. :=)  Olga Soto, Neighborhood Specialist City of Phoenix, Neighborhood Services Department 200 West Washington, 4th Floor 602-256-3493 olga.soto@phoenix.gov — Forwarded by Olga Soto/NSD/PHX on 06/27/2013 08:58 AM —  "Troy Erhardt" <terhardt@ctscabling.com> 06/27/2013 08:28 AM To: Olga Soto/NSD/PHX@PHXENT cc Subject: safe route to school. To whom it may concern. My son is going to be going to school during the construction of the new freeway and my concern is that during this time there is no safe path for the kids to travel. Being the President of the HOA this is a very big concern for the community. Is there anything that can be constructed to help us such as a walk way over the freeway and a temporary path during the construction. Please feel free to contact me at any time. Troy Erhardt Service Manager Cell: (602) 319-7842 Fax: (480) 377-0228 terhardt@ctscabling.com www.ctscabling.com AZ ROC 259/759 L-87  "Connecting Your Future" State Contract # ADSP012-033466 Confidentiality Notice: This email and any files transmitted with it are intended solely for the identified recipient(s). This email may contain confidential and proprietary information of Corporate Technology Solutions, LLC. If you received this email in error, please notify the sender and delete this email from your system. If you are not the intended recipient, you are not authorized to use, copy, distribute or take any other action with respect to this email.

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Code	Issue	Response

Code	Comment Document
	Review of Initial Location/DCR and DEIS for State Route 202L (South Mountain Freeway) Interstate 10 (Maricopa Freeway) to Interstate 10 (Papago Freeway) Page 11 Olga Soto/NSD/PHX 06/27/2013 01:33 PM To: Myesha Harris/STR/PHX@PHXENT cc bcc Subject: Fw: request for loop 202 SRTS for Rio Del Rey One more e-mail on the SRTS at Broadway. NSD Olga Soto, Neighborhood Specialist City of Phoenix, Neighborhood Services Department 200 West Washington, 4th floor 602-256-3493 olga.soto@phoenix.gov — Forwarded by Olga Soto/NSD/PHX on 06/27/2013 01:31 PM — John Tyler <johntyler480@gmail.com> 06/27/2013 12:58 PM To: Olga Soto/NSD/PHX@PHXENT cc Subject: request for loop 202 SRTS for Rio Del Rey Dear Ms. Soto, I am writing to request a "safe route to school" bridge be included by ADOT in the loop 202 construction between Broadway and Lower Buckeye. I am a resident of the Rio Del Rey community. The construction of the freeway will divide the community and impede traffic between the school and residences. A bridge would allow students to continue their education services uninterrupted and alleviate some of the hardships borne during construction of the freeway.. I appreciate your consideration in this matter. Sincerely, John Tyler Math Teacher Adobe Mountain School AZ PBL State Officer Liaison azpbl.org @azpbl

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	Review of Initial Location/DCR and DEIS for State Route 202L (South Mountain Freeway) Interstate 10 (Maricopa Freeway) to Interstate 10 (Papago Freeway) Page 12  RIVERSIDE ELEMENTARY SCHOOL DISTRICT NO. 2 1414 S. 51st Avenue Phoenix, Arizona 85043  #2 Governing Board  District Administration  Mr. Ruben B. Gutierrez Teaching & Learning (602) 477-8900 Ext. 1117 rgutierrez@riverside.k12.az.us  Mr. Jose Moreno Business & Student Services (602) 477-8900 Ext. 1120 jmoreno@riverside.k12.az.us  Mr. Marcus J. Pilla Principal Riverside Traditional School (602) 273-1139 Ext. 2604 mpilla@riverside.k12.az.us  Mr. Talmadge Tanks Principal Kings Ridge Preparatory Academy (602) 477-8900 Ext. 3115 ttanks@riverside.k12.az.us Thursday, June 27, 2013 RE: Safe Path to School Chaun Hill Arizona Department of Transportation 1611 West Jackson Street Phoenix, AZ 85007 Ms. Hill, Riverside Elementary School District #2 has been in existence since 1872. We have been the center of our community and continue to provide services to our students and parents that reside within our boundaries. As the city has approved additional housing developments within our school boundaries it is imperative that we plan accordingly in the design of the proposed freeway. Our student population will increase twofold by 2014. This will increase pedestrian traffic to and from Kings Ridge Preparatory Academy. The proposed freeway will cut through our Rio Del Rey Community leaving a major portion of our students crossing the freeway. We are recommending that ADOT consider the safety of our students by locating a pedestrian bridge within the vicinity of 62nd Avenue and Broadway. This will ensure a safe transit point for our students to and from school. Please feel to contact me if you need any additional information to support this recommendation. Sincerely,  Jaime A. Rivera, Superintendent of Schools Riverside Elementary School District #2

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City of Phoenix
OFFICE OF THE CITY COUNCIL

SAL DiCICCO
COUNCILMAN

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July 23, 2013

John Halikowski, ADOT Director
c/o South Mountain Study Team
Arizona Department of Transportation
1655 West Jackson Street, MD 126F
Phoenix, Arizona 85007

RE: Opposition to proposed South Mountain Loop 202 Pecos Alignment

The South Mountain Freeway is the most important issue affecting the quality of life in Ahwatukee. I am strongly opposed to the South Mountain Loop 202 Freeway, in particular, the Pecos Road alignment. I am on record, since the 90's, opposing this due to the damage it will cause.

Ahwatukee is home to me and my family. We love this community dearly and it is my goal to preserve the quality of life we have all come to enjoy.

The proposed Loop 202 alignment will have a dramatic affect on our community. The loss of over 250 houses, churches and vital water resources that impact huge communities like the Lakewood development and the Foothills development, whose well water will be lost in the construction, are just some of the reasons to oppose the Pecos Road alignment. In addition, it is unimaginable that a proposed route would cut through one of our state treasures – South Mountain Park. As an avid hiker of this park, the prospect of any portion of it being blasted apart to make way for a freeway shows a total lack of understanding of this area and the importance South Mountain Park plays in our way of life in Ahwatukee.

I have fought hard to seek alternative routes and I will continue to do so. I have made a commitment to protect our community and make sure all options are explored. However, I will continue to oppose the Pecos Road alignment, as it is not the right choice for our community.

Sincerely,



Sal DiCicco
Phoenix City Councilman, District 6

200 West Washington Street, 11th Floor, Phoenix, Arizona 85003-1611
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1	Neighborhoods/ Communities	While the E1 Alternative is adjacent to the largely residential areas of Ahwatukee Foothills Village (to the north), a freeway has been planned in this location for many years (see pages 4-17 and 4-21 of the Final Environmental Impact Statement). Where existing residential uses are adjacent to the proposed freeway, noise mitigation would be implemented according to the Arizona Department of Transportation policy (see page 4-88 of the Final Environmental Impact Statement).
2	Neighborhoods/ Communities	Prospective home buyers and members of the church built after the freeway was conceived, according to State law, should have been informed of the proposed facility. (Sellers are obligated by Arizona common law to disclose all known material facts about a property to the buyer.)
3	Groundwater	If a well were adversely affected by construction activities, the well might need to be abandoned or the well owner would be compensated by drilling a new well according to State regulations/standards. (See text box on page 4-108 of the Final Environmental Impact Statement.) The well replacement program as outlined by State law would be implemented by the Arizona Department of Transportation to effectively mitigate well impacts associated with its projects throughout the region.
4	Section 4(f) and Section 6(f)	The proposed South Mountain Freeway would pass through the park's southwestern edge. Section 4(f) of the Department of Transportation Act extends protection to significant publicly owned public parks, recreation areas, and wildlife and waterfowl refuges, as well as significant historic sites, whether they are publicly or privately owned. This protection stipulates that those facilities can be used for transportation projects only if there is no prudent and feasible alternative to using the land and the project includes all possible planning to minimize harm to the land [see Final Environmental Impact Statement, Chapter 5, <i>Section 4(f) Evaluation</i>]. The project team examined alternatives to avoid the Phoenix South Mountain Park/Preserve, but did not identify any feasible and prudent alternatives to avoid impacts on the park. The Arizona Department of Transportation continues to work with park stakeholders to minimize impacts and address concerns. Measures to minimize harm to the park were developed (see Final Environmental Impact Statement, starting on page 5-23). The portion of the park that would be used for the proposed freeway would be 31.3 acres, or approximately 0.2 percent of the park's approximately 16,600 acres (see Draft and Final Environmental Impact Statements page 5-31). Phoenix South Mountain Park/Preserve would remain the largest municipally owned park in the United States. Nine-tenths of a mile of the proposed freeway would pass through the park's southwestern edge (see page 5-14 of the Final Environmental Impact Statement). The activities that make the park a highly valued resource (recreational activities, interaction with the Sonoran Desert) would remain.

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4318	1 me because I'm over on 74th Avenue. That's pretty much 2 all I have. 3 * * * 4 UNIDENTIFIED SPEAKER: I think they're a 5 little late in doing this, but I hope they do do this at 6 some point. I don't see any reason not to do this. I 7 think in Phoenix, in general, they wait until it's too 8 late to do some of this planning. So I think with all 9 the information available, it's very overwhelming. But 10 this project is definitely needed and just to alleviate 11 some of the stress downtown with traffic and help have 12 alternative ways of getting to West Phoenix other than 13 driving through Central Phoenix. 14 So I'm a native to Ahwatukee, and this has 15 been something on the burner for a while now and hasn't 16 come to fruition, so I think that's my statement. 17 I don't see any reason why they haven't 18 built it around. I think of all the new opportunities, 19 it will -- housing and jobs and stuff, just "build it and 20 they will come" kind of thing. If they build a freeway, 21 there might not be anything there now, but why wait until 22 everything is there and then build it -- not aggressive 23 or proactive, but that's basically it. 24 * * * 25 MR. NOWAKOWSKI: Michael Nowakowski. I am Page 8 Driver and Nix Court Reporters - (602) 266-6525 www.drivernix.com

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	1 recommending -- or that's why I as a city council member 2 are recommending to build it on city property. 3 Pecos Road has already been cleared for 4 that, the majority has already been bought. If you drive 5 down the I-10, you will see the stack for the Pecos Road 6 and the rest of the 202. The 202 will -- this portion of 7 the South Mountain Freeway will connect what is the 8 missing link between the East Valley and the West Valley. 9 It will complete the whole 202. 10 We're the 6th largest city in the country 11 and not having a freeway that's connected creates this 12 congestion and has motorists on freeways for hours just 13 idling, and I think that's worse for our environment than 14 not building a freeway. 15 On top of all of that, we're looking at 16 30,000 jobs, and it'll probably be the biggest stimulus 17 project in the state of Arizona that we're going to have, 18 close to almost \$2 billion. So it's something that's 19 going to bring revenues for the state, something that's 20 going to bring jobs for the state, and the other thing is 21 it's going to basically relieve the traffic that we have 22 and reduce the air pollution and that's one of the things 23 that we need. 24 Also, if you look in the Laveen and South 25 Phoenix areas, we have low income individuals that have Page 11 Driver and Nix Court Reporters - (602) 266-6525 www.drivernix.com

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	1 streets in the wrong area. 2 The other thing is that the residents out 3 in the Laveen area are still waiting for all the 4 different amenities, like restaurants, hospitals, things 5 for families, just movie theaters and all of that. And 6 every time we try to advocate for businesses to move to 7 Laveen, they're saying that once the freeway is decided 8 that's when they'll make the decision to bring in those 9 types of businesses, hospitals, and other things that are 10 needed. 11 If you look at the City of Phoenix, south 12 of the Rio Salado, there's not a hospital. And shame on 13 us that we don't have a hospital south of the river. And 14 this freeway will bring a hospital south of the river, if 15 it's built. 16 The other concerns we're hearing out there 17 is the whole concern of the residency, that they don't 18 want the freeway to be built on the reservation, so that 19 means that we have to build it on the foothills of the 20 South Mountain. And basically we're looking at about a 21 17,000-acre park, and we're going to probably touch about 22 30 acres of that park or of the mountain, because we 23 can't build it on the reservation. 24 They have taken some of the votes and they 25 have been voted down. That's why the City of Phoenix is Page 10 Driver and Nix Court Reporters - (602) 266-6525 www.drivernix.com

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	1no ways to get to a hospital if there's a emergency. So 2having a freeway will bring a hospital closer to 3individuals. Instead of driving at least 20 minutes 4away, you'll have a hospital within five to ten minutes. 5You'll just have people with disabilities that have no 6way of getting to a hospital also, and this will bring a 7hospital for that. So for low income people, people from 8disability, and for minorities, it'll bring not only a 9hospital but good paying jobs also. That's it. Just 10build that damn freeway. 11* * * 12PAULA FLECK: Paula Fleck. I just wanted 13to add that I heard a woman get up and speak and mention 14that she believed that adding the 202 would cause 15emphysema. And I'm a respiratory therapist, and I can 16tell you that emphysema is not caused by pollution from 17the 202. Over 90 percent of it is caused by smoke like 18cigarettes or any kind of thing you would smoke. About, 19I'd say, five percent would be from secondhand smoke or 20working in a job where you're around a lot of chemicals, 21directly exposed and not protecting yourself with the 22mask, and about one percent of it is caused by alpha 231-antitrypsin. Those are rough numbers. 24But I'll tell you this is from my 25schooling, as well as what I've seen working in a Page 12 Driver and Nix Court Reporters - (602) 266-6525 www.drivernix.com

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