

8. PERMITS AND APPROVALS

ADOT will be responsible for ensuring compliance with all related commitments and regulatory permit conditions made or obtained for the project. Anticipated permits and approvals required for the South Mountain Freeway—and the agencies from which these permits and approvals will be obtained—are listed as follows.

Federal

USACE:

- ▶ Section 404, individual permits and nationwide permits, as required

FHWA:

- ▶ authorization to proceed with design, construction, and R/W activities

State

Arizona Department of Environmental Quality (ADEQ):

- ▶ Section 401, Water Quality Certification
- ▶ Section 402, construction Arizona Pollution Discharge Elimination System permit

Local

Maricopa County Air Quality Department:

- ▶ dust permit

9. PUBLIC OUTREACH AND COMMENTS RECEIVED ON THE FEIS AND ERRATA

Although issuance of an FEIS does not require a formal comment period under NEPA, FHWA's Environmental Impact and Related Procedures (23 C.F.R. Part 771) call for new substantive comments received on an FEIS to be responded to in the ROD. This section of the ROD describes the public outreach related to the FEIS.

Final Environmental Impact Statement Availability

The FEIS was made available to the public on September 26, 2014. Public notification of availability of the FEIS included the following:

- ▶ publication in the *Federal Register*
- ▶ direct mail and/or e-mail notice (notice provided to all participants who provided a direct mail or e-mail address during the project's public involvement process; direct mail used for key agencies)
- ▶ Community and jurisdictional briefings about the FEIS
- ▶ project Web site announcement
- ▶ notification posters distributed throughout the Study Area
- ▶ advertisement of FEIS availability in local newspapers of wide distribution, including:
 - > *Abwatukey Foothills News*: Friday, September 26, 2014
 - > *Arizona Informant*: Wednesday, October 1, 2014
 - > *The Arizona Republic*: Friday, September 26, 2014
 - > *East Valley Tribune*: Sunday, September 28, 2014
 - > *Gila River Indian News*: Friday, October 3, 2014
 - > *La Voz*: Friday, September 26, 2014
 - > *West Valley View*: Friday, September 26, 2014

The FEIS and notices of availability stated that comments could be submitted by:

- ▶ mailing them to the South Mountain Freeway project team at: South Mountain Freeway Project Team; Arizona Department of Transportation; 1655 West Jackson Street, MD 126F; Phoenix, AZ 85007
- ▶ e-mailing them to <projects@azdot.gov>
- ▶ leaving them as a message on the project hotline at (602) 712-7767

Printed copies of the FEIS and related documents were available for purchase from ADOT upon request or were available for the cost of printing at a FedEx Office Print & Ship Center. Compact discs of the FEIS were available at no charge and were provided upon request.

The FEIS, DEIS, and technical reports were available to download at no charge at <azdot.gov/southmountainfreeway>.

A printed copy of the FEIS was available for review at eight libraries throughout the Study Area and at nine locations on the Community (see Volume III, Appendix B). In addition, printed copies were available for review by appointment at ADOT.

Errata to the Final Environmental Impact Statement

After release of the FEIS, ADOT was contacted by a stakeholder organization and was informed that the comments it had submitted on the DEIS were not included in the FEIS. ADOT examined this concern and found that the comments, submitted through e-mail, had been received, but were not transmitted to the project team. ADOT conducted a thorough search of the e-mail system and found that 10 e-mail comments had been inadvertently omitted from the FEIS. The omitted comments consist of the e-mail from the stakeholder organization and 9 e-mails from other interested parties. The comments were reviewed, and FHWA and ADOT determined that omitted comments did not raise new issues not analyzed in the FEIS. Based on this, FHWA, in conjunction with ADOT, published an omission notice in the *Federal Register* on November 7, 2014, and prepared an errata volume [Volume IV of the FEIS] to address these omissions.

The errata was made available to the public on ADOT's Web site and at the repositories on November 28, 2014. Public notification of availability of the errata included the following:

- ▶ publication in the *Federal Register* on December 5, 2014
- ▶ direct mail and/or e-mail notice (notice provided to all participants who provided a direct mail or e-mail address during the project's public involvement process; direct mail used for key agencies)
- ▶ Community and jurisdictional briefings about the errata

- project Web site announcement
- advertisement of errata availability in local newspapers of wide distribution, including:
 - *Ahwatukee Foothills News*: Friday, November 28, 2014
 - *Arizona Informant*: Wednesday, December 3, 2014
 - *The Arizona Republic*: Friday, November 28, 2014
 - *East Valley Tribune*: Sunday, November 30, 2014
 - *Gila River Indian News*: Friday, December 5, 2014
 - *La Voz*: Friday, November 28, 2014
 - *West Valley View*: Friday, November 28, 2014

The errata and notices of availability stated that comments could be submitted by:

- mailing them to the South Mountain Freeway project team at: South Mountain Freeway Project Team; Arizona Department of Transportation; 1655 West Jackson Street, MD 126F; Phoenix, AZ 85007
- e-mailing them to <projects@azdot.gov>
- leaving them as a message on the project hotline at (602) 712-7767

Printed copies of the errata were available for purchase from ADOT upon request or were available for the cost of printing at a FedEx Office Print & Ship Center. Compact discs of the errata were available at no charge and were provided upon request.

The errata was added to the documents available to download at no charge at <azdot.gov/southmountainfreeway>.

A printed copy of the errata was available for review at eight libraries throughout the Study Area and at nine locations on the Community (see Volume III, Appendix B). In addition, printed copies were available for review by appointment at ADOT.

Gila River Indian Community Outreach

On August 29, 2014, ADOT hand-delivered a letter to the Community's Transportation Technical Team describing the project team's desire for guidance from the Community on how to best accommodate

communication with Community members, specifically related to comments received during the DEIS comment period regarding the Community's oral tradition (see Volume III, Appendix C). The letter proposed conducting a forum for Community members, in partnership with the Community, during the 60-day FEIS review period. The forum would include an opportunity for oral testimony. To allow sufficient time to prepare for such a forum, the letter requested a response to the proposal by September 19, 2014.

On September 12, 2014, the Community indicated that to properly form its response, it needed to review the comments submitted by Community members on the issue of oral traditions. Specific comments related to this topic were provided to the Community on September 26, 2014, and the deadline for response to the forum request was extended to October 30, 2014 (see Volume III, Appendix C). The Community responded on October 30, 2014, that it would like to hold a Community meeting; therefore, a Community meeting was held on November 15, 2014.

The forum occurred from 9 a.m. to 12 p.m. on Saturday, November 15, 2014, at the Boys & Girls Club, Gila River – Komatke. The Boys & Girls Club is located just east of 51st Avenue and Pecos Road in District 6 of the Community. The time, location, and duration of the forum was determined by the Community.

The Community's Communications and Public Affairs Office (CPAO) coordinated all notification which included:

- a flier posted at the bulletin boards at each District's service center (see Volume III, Appendix C)
- direct mail postcard to Community members (see Volume III, Appendix C)
- meeting information (newspaper version of the flier) published in the *Gila River Indian News* on November 7, 2014
- meeting information posted on social media

The Community's leadership decided that, other than invited guests, the meeting would be open to

Community members only. The Community developed the agenda and facilitated the forum, which consisted of introductions, a description of the comment opportunities and court reporters' roles, an introduction to the South Mountain Freeway video flyover simulation, and an "open-microphone" comment period. The Community facilitator stated that the FHWA and ADOT project team members were guests at the forum and were in attendance to listen to comments. A translator was provided by the Community for those wishing to speak in the native O'odham language.

CPAO staff provided a sign-in table, at which 60 attendees signed in (see Volume III, Appendix C). During the meeting, Community members had the following methods to provide comments:

- public testimony at a microphone and recorded by a court reporter (see Volume III, Appendix C for a transcript of the meeting)
- one-on-one testimony with two court reporters at the back of the meeting area (no comments were provided)
- in writing via comment cards (no comments were provided)

Responses to the comments received at the meeting are presented in Volume II, Appendix A.

Public Comments

The initial 60-day review period for the FEIS was from September 26, 2014, to November 25, 2014. As a result of the publication of the errata, ADOT and FHWA extended the review period to December 29, 2014. Between September 26, 2014, and December 29, 2014, approximately 250 comments pertaining to the FEIS, errata, or NEPA process and documentation for the South Mountain Freeway were received. Comment letters, voice mail message summaries, and e-mails and responses from ADOT and FHWA are included in Volume II, Appendix A. ADOT and FHWA identified several recurring public comments. The nature of these comments, followed by a broad response to the issue, is provided in the text box beginning on the next page.

Responses to Frequently Submitted Public Comments

ADOT and FHWA identified several recurring public comments. The nature of these comments is summarized below, immediately followed by a broad response to the issue. The responses address issues that were commented on by multiple reviewers and address the majority of the comments submitted.

ISSUE: ACQUISITIONS AND RELOCATIONS

Frequent comment: *Commenters inquired about the process that will be undertaken by ADOT in the acquisition and relocation of their homes or businesses.*

Response: Land acquisition and relocation assistance services for the project shall be available to all individuals without discrimination in accordance with Title VI and the Uniform Act, which provides uniform, fair, and equitable treatment of people whose property is affected or who are displaced as a result of the project, including those with special needs. Advisory assistance services and compensation practices are described in detail in ADOT's *Right-of-way Procedures Manual*, located at <azdot.gov/business/RightofWay_Properties/booklets-and-manuals>. For further discussion, see page 4-51 of the FEIS and Appendix 4-1. For questions on specific properties, contact the ADOT Right-of-Way Group at (602) 712-7316.

ISSUE: AIR QUALITY

Frequent comment: *Commenters expressed the belief that the freeway will cause an increase in air pollution and that the freeway will worsen air quality.*

Response: Since the release of the DEIS, ADOT and the FHWA have consulted extensively with EPA on the air quality analytical approach and methods used in the FEIS. This consultation has resulted in agreement on the analysis methodologies and the results of these analyses. The carbon monoxide (CO) and particulate matter (PM₁₀) analyses demonstrated that the proposed freeway will 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 (NAAQS) or any required interim emissions reductions or other milestones. The roadside CO and PM₁₀ analyses used the latest traffic estimates and emissions and pollutant dispersion models and were reviewed by EPA. The FEIS includes analysis at three different locations along the proposed project (I-10 interchange, Broadway Road interchange, and 40th Street interchange), including worst-case locations based on traffic volumes, and additional locations to ensure coverage of all areas along the corridor. All locations meet the PM₁₀ NAAQS and are well below the CO NAAQS, and the receptor diagrams in Figure 22 in the ROD show that concentrations decrease rapidly as distance from the roadway increases. At the worst-case locations, nearly all of the concentrations reported are attributable to background concentrations; at the location with the absolute highest concentration for PM₁₀, 145 micrograms per cubic meter is the background concentration and only 3.8 micrograms per cubic meter will be added by the project.

For mobile source air toxics (MSATs), the updated analysis showed that for the Study Area, constructing the freeway will 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 MSATs emissions will 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 (see discussion beginning on page 4-78 of the FEIS). Congestion relief resulting from the freeway will provide localized air quality emissions reductions on area freeways, arterial streets, and at interchanges, benefiting users of area highways and those living near or using congested roads. Additional details on air quality issues can be found in the frequent responses for *Health Effects* and *Children's and Seniors' Health*.

Some commenters expressed confusion or skepticism that construction of a large new freeway would result in a small change in emissions, as documented in the FEIS. As explained in the FEIS and response to comments, FHWA MSATs emissions assessments in the agency's NEPA documents are designed to evaluate emissions changes within a study area including roadway segments where traffic volumes change as a result of the project. EPA's risk estimates for MSAT pollutants are based on 70-year lifetime exposure; it is more likely that a person will be within the study area for 70 years than at a fixed

location near the proposed corridor for 70 years. Thus, emissions changes in a study area are a reasonable indicator of potential changes in health risk.

FHWA acknowledges that emissions will be higher on average along the project corridor when the project is built, compared with the No-Action Alternative. However, emissions will likely decrease elsewhere in the Study Area. While FHWA did not calculate any site-specific emissions changes for the South Mountain Freeway or any other roadway segments, the *Traffic Overview* report provides an indication of where this could occur. For example, Table 19 in the *Traffic Overview* report shows that traffic volumes on nearly all sections of I-10 analyzed will decrease with the project; Table 20 shows that traffic volumes on nearly all affected sections of arterial streets will also decrease. It is reasonable to assume that since traffic volumes decrease relative to the No-Action Alternative, MSATs emissions will also decrease. Tables 23 and 24 of the *Traffic Overview* report show that travel times will decrease for all representative trips, meaning that MSAT exposures for these travelers will also likely decrease (since they are spending less time in traffic, exposed to emissions). Thus, while people will be exposed to higher concentrations of MSATs during the portion of their 70-year lifetime that they are located adjacent to the project corridor, they will also be exposed to lower concentrations of MSATs while they are located elsewhere in the Study Area. Again, a study area analysis best captures the overall likelihood of changes in MSAT emissions and possible MSAT health outcomes attributable to the project.

Finally, to address the fact that emissions will be higher along the project corridor, the FEIS includes a summary of past health risk studies for similar projects. As explained in the FEIS and air quality technical report, all of these studies identified very low health risk, well below EPA's "Action Level" for addressing risk. These studies also assumed long-term constant exposure to the roadways studied (24 hours a day for 70 years in most of the studies, 24 hours a day for 30 years in one study), even though these long exposure time frames are not representative of real-life conditions. FHWA did not receive any negative comments on the summary of these studies from EPA or other experts.

To summarize FHWA's understanding of the likely air quality impacts from the project:

- 1) The CO and PM₁₀ modeling analyses, conducted in close consultation with EPA, show that neither of these air quality standards will be violated in the vicinity of the project.
- 2) The MSAT emissions analysis for the applicable geographic area for 70-year health risks shows a small increase in emissions (about 1 percent) with the project built (compared to not building it), but large declines from today's levels (about 80 percent) whether it is built or not.
- 3) While MSAT emissions will increase in the immediate vicinity of the corridor, the project-specific risk studies available to FHWA indicate that the potential risk is very low and is far less than EPA's Action Level for addressing it.

ISSUE: ALTERNATIVES, ENVIRONMENTALLY PREFERABLE ALTERNATIVE

Frequent comment: *Commenters expressed that the No-Action Alternative is the environmentally preferable alternative.*

Response: CEQ regulations [40 C.F.R. Section 1505.2(b)] require a ROD to identify the environmentally preferable alternative. The environmentally preferable alternative is defined as the alternative that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historic, cultural, and natural resources. Designation of the environmentally preferable alternative typically involves judgment and the balancing of some environmental values against others. CEQ notes that comments on draft environmental documents (such as the DEIS and FEIS for this project) can assist the lead agency in developing and determining environmentally preferable alternatives.

Although the No-Action Alternative would overall have less environmental impact, this alternative does not meet the project's purpose and need. Mitigation measures have been added to the project's ROD based on comments received on the DEIS and FEIS. The Selected Alternative is the environmentally preferable alternative that satisfies the project's purpose and need. Although the Selected Alternative does not have the least impact in every environmental discipline, ADOT and FHWA believe that this alternative best balances environmental effects and benefits. The Selected Alternative will meet

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the project needs as well as or better than the other alternatives, and, in the case of the E1 Alternative, was determined to be the only prudent and feasible alternative in the Eastern Section of the Study Area. The Selected Alternative will have similar environmental effects on natural resources, cultural resources, hazardous materials, and noise as the other action alternatives; will displace fewer residences; will have the lowest impact on total tax revenues of local governments; will have lower construction costs; will result in less construction disruption overall to I-10 (Papago Freeway); will mitigate impacts and provide measures to minimize harm; represents all possible planning to minimize harm to resources afforded protection under Section 4(f); is favored by the majority of local governments; and will meet regulatory permitting requirements.

ISSUE: ALTERNATIVES, GILA RIVER INDIAN COMMUNITY ALIGNMENT

Frequent comment: Commenters expressed a desire to locate the freeway on Community land.

Response: Tribal sovereignty is based on the inherent authority of Native American Tribes to govern themselves. States have very limited authority over activities within tribal land (see FEIS page 2-1). ADOT and FHWA do not have the authority to survey tribal land, make transportation determinations directly affecting tribal land, or condemn tribal land through an eminent domain process.

While efforts to study project alternatives on Community land were attempted (see FEIS Chapter 2, *Gila River Indian Community Coordination*), the Community has long held a position of not allowing the freeway to be located on its land. For example, a coordinated referendum of Community members to favor or oppose construction of the freeway on Community land or to support a no-build option occurred in February 2012, and Community members voted in favor of the no-build option. Moving forward, therefore, the freeway cannot be located on the Community (see FEIS page 3-25). The Community's position regarding a "no-build" option was considered in the DEIS and FEIS. That position is formally known as the No-Action Alternative and was evaluated in depth in assessments of the impacts of the freeway on each resource. FHWA, ADOT, and MAG will continue to coordinate with the Community regarding concerns and potential mitigation for those concerns.

ISSUE: ALTERNATIVES, GILA RIVER INDIAN COMMUNITY NO-BUILD REFERENDUM

Frequent comment: Commenters expressed a belief that the project team had not considered the Gila River Indian Community's vote for the no-build option.

Response: The FEIS on page 2-4 acknowledges that the Community Council passed Resolution GR-64-96 that strongly opposed any future alignment of the South Mountain Freeway on Community land. In addition, the comments received from Community Governor Gregory Mendoza (see letter dated July 11, 2013, on page B38 in Appendix 7, Volume III, of the FEIS and letter dated December 15, 2014, on page A24 in Appendix A) confirm the Community's position. A coordinated referendum of Community members to favor or oppose construction of the proposed freeway on Community land or to support a no-build option occurred in February 2012, and Community members voted in favor of the no-build option. The EIS process allows the voter outcome to be taken into account as one of many factors to consider in terms of the NEPA decision making intent to promote a more informed decision with regard to the proposed action.

ISSUE: ALTERNATIVES, NO-ACTION (NO-BUILD) ALTERNATIVE

Frequent comment: Commenters expressed a desire to select the No-Action (No-Build) Alternative as the Preferred Alternative.

Response: As stated on page 3-40 of the FEIS, the No-Action Alternative would not satisfy the purpose and need of the freeway 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 MAG's and local jurisdictions' long-range planning and policies. The No-Action Alternative was included in the DEIS and FEIS for detailed study to

compare impacts of the action alternatives with the consequences of doing nothing (as impacts can result from choosing to do nothing). The impacts associated with the No-Action Alternative are discussed in each section of Chapter 4, *Affected Environment, Environmental Consequences, and Mitigation*, in the FEIS. These impacts are also summarized in Table S-3 on page S-10 of the *Summary* chapter of the FEIS.

The comparison of traffic operational characteristics between the action alternative and the No-Action Alternative is presented in the FEIS, beginning on page 3-27. The analysis shows that the action alternatives will:

- reduce overall traffic on the arterial street system (see Figures 3-12 and 3-13 in the FEIS)
- optimize travel on the region's freeway system (see Figure 3-12 in the FEIS)
- reduce the capacity deficiency to levels better than experienced today (see Figures 1-12 and 3-14 in the FEIS)
- reduce the duration of LOS E or F conditions in key areas of the region's freeway system (see Figure 3-15 in the FEIS)
- improve travel times on trips within the Study Area and across the region (see Figure 3-17 and Table 3-8 in the FEIS)
- provide improved regional mobility for areas projected to experience growth in the next 25 years (see Figures 1-7 and 3-18 in the FEIS)

When all of this is considered in the realm of travel time savings for motorists in the region, the user benefits total approximately \$200 million per year (see Table 4-27 in the FEIS).

ISSUE: ALTERNATIVES, NONFREEWAY ALTERNATIVES

Frequent comment: Commenters expressed a desire for ADOT to invest in nonfreeway travel modes.

Response: The study has considered a variety of transportation modes: TSM/TDM, mass transit (commuter rail, light rail, expanded bus service), arterial street improvements, land use controls, new freeways, and a No-Action Alternative. These alternatives alone or in combination would have limited effectiveness in reducing overall traffic congestion in the Study Area and, therefore, would not meet the purpose and need criteria; specifically, they would not adequately address projected capacity and mobility needs of the region. Mass transit modes such as light rail and an expanded bus system were reexamined in the FEIS and were eliminated from further study because even better-than-planned performance of transit would not adequately address the projected 2035 travel demand (see FEIS page 3-4). For example, the average daily ridership for the light rail system connecting downtown Phoenix and the Arizona State University campus was approximately 44,000 in 2014. This is only approximately 25 percent of the total daily vehicles projected to use the freeway in 2035. Two high-capacity transit corridors are being considered near the western and eastern extents of the Study Area, but such extensions would not adequately address the projected 2035 travel demand. A freeway/light rail combination would integrate a freeway and light rail system into a single transportation corridor (see FEIS page 3-6). Such a freeway/light rail system is planned at two locations: along I-10 (Papago Freeway) and along SR 51 (Piestewa Freeway). These two segments would connect to the light rail system currently in operation. With these two freeway/light rail segments already in planning stages, members of the public identified a similar opportunity along the South Mountain Freeway. Most freeway/light rail combinations, however, radiate from a central travel demand generator such as a business district or airport. No such systems are known to follow a circumferential route, as the freeway will. Furthermore, the additional R/W needed for light rail (generally, a 50-foot-wide corridor) would have substantial community impacts such as displaced residences and businesses and parkland impacts. Therefore, the light rail alternative and light rail and freeway combination would not be prudent and were eliminated from further study. The freeway mode was determined to be an appropriate response to the project's purpose and need.

The freeway is part of the RTP for the MAG region. The RTP, as described on pages 1-5 and 1-10 of the FEIS, addresses freeways, streets, transit, airports, bicycle and pedestrian facilities, freight, TDM, TSM, and safety. The freeway is only one part of the overall multimodal transportation system planned to meet the travel demand needs of the MAG region.

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As noted on page 3-4 of the FEIS, however, even better-than-planned performance of transit and other modes would not adequately address the projected 2035 travel demand.

ISSUE: ALTERNATIVES, RANGE OF REASONABLE ALTERNATIVES

Frequent comment: *Commenters expressed that they did not feel the study considered a range of reasonable alternatives.*

Response: In accordance with NEPA, a range of reasonable action alternatives to carry forward for further analysis was determined through application of multidisciplinary criteria in a logical, step-wise progression. Alternatives were not disposed of or dismissed without a thorough evaluation using the multidisciplinary criteria outlined in the systematic alternatives development and screening process presented in Chapter 3 of the DEIS and FEIS. This process, which occurred early in the EIS process, was revisited and validated in the FEIS (see page 3-2).

As discussed on page 5-18 of the FEIS, many alternatives were examined to avoid the South Mountains. However, none of these alternatives are feasible and prudent. The alternatives development and screening process considered the ability of an alternative to minimize impacts on the human and natural environments (see page 3-3 of the FEIS). Throughout the process described beginning on page 3-3, environmental impacts are used to eliminate alternatives. In the evaluation of action alternatives (see text beginning on page 3-62 of the FEIS), environmental and societal impacts play a substantial role in the identification of the W59 and E1 Alternatives as the Preferred Alternative. In comparison with the other action alternatives studied in detail, the Preferred Alternative is the least harmful alternative.

ISSUE: ALTERNATIVES, W59 ALTERNATIVE VERSUS W101 ALTERNATIVE

Frequent comment: *Commenters expressed that the W101 Alternative would be a better connection point to I-10 in the Western Section and expressed concerns that traffic operations along I-10 will be adversely affected by the connection at 59th Avenue (W59 Alternative).*

Response: In preparing the FEIS, FHWA and ADOT once again compared the W59 Alternative with the W101 Alternative (see FEIS beginning on page 3-68). This comparison examined overall transportation needs, consistency with regional and long-range planning goals, environmental and societal impacts, operational differences, estimated costs, and regional support and public input. The W101 Alternative would result in approximately 200 to 600 more displaced residential properties than the W59 Alternative. The W59 Alternative will have a nominal effect on the local tax base in Phoenix. The W101 Alternative would have a severe impact on the City of Tolleson's tax base and would lead to a reduction in City-provided services. R/W for the W101 Alternative would eliminate a substantial portion of the remaining developable land in Tolleson. The W101 Alternative would need the partial or complete reconstruction of the SR 101L (Agua Fria Freeway) and I-10 (Papago Freeway) interchange and additional widening improvements to SR 101L (Agua Fria Freeway). The total cost of the W101 Alternative would be \$490 million to \$640 million greater than the W59 Alternative. Resolutions passed by the City/Town Councils of Avondale, Buckeye, Gila Bend, Goodyear, Litchfield Park, Phoenix, and Tolleson supported an alternative near 55th Avenue (now closely represented by the W59 Alternative) and opposed the W101 Alternative. Following this reanalysis, FHWA and ADOT identified the W59 Alternative as the Preferred Alternative in the Western Section.

In preparing the FEIS, FHWA and ADOT reanalyzed the Western Section action alternatives' effects on operations along I-10 (see FEIS beginning on page 3-62). The analysis determined that the No-Action Alternative would result in the most sections along I-10 operating at LOS E or F, and for the longest duration. The connection to I-10 (Papago Freeway) at 59th Avenue will include substantial improvements (widening) along I-10 to provide adequate operations on I-10 in the area of the junction and to allow traffic moving to and from the South Mountain Freeway to enter and exit the I-10 main line (see page 3-49 of the FEIS). The design of the I-10 and South Mountain Freeway system traffic interchange at 59th Avenue has received preliminary acceptance from the FHWA, subject to completion of the NEPA process.

ISSUE: BIOLOGY, PLANTS, AND WILDLIFE

Frequent comment: *Commenters expressed concerns about the impacts the freeway will have on plants and wildlife within and around the SMPP area.*

Response: Within the context of overall vegetation, wildlife, and wildlife habitat, all action alternatives and options would result in a decrease in the amount of cover, nesting areas, and food resources for wildlife species caused by construction of the project. See the section, *General Impacts on Vegetation, Wildlife, and Wildlife Habitat*, beginning on page 4-136 of the FEIS, for additional details on potential effects on vegetation, wildlife, and wildlife habitat.

ADOT and FHWA completed a Biological Evaluation containing an analysis of the project effects on listed and candidate species under the ESA. The Biological Evaluation was completed in May 2014 following identification of the Preferred Alternative in the DEIS. The Biological Evaluation was sent to USFWS, AGFD, and the Community Department of Environmental Quality. USFWS was asked for technical assistance with minimizing impacts on listed and candidate species prior to completion of the FEIS. In a letter dated July 18, 2014, the Community provided comments on the Biological Evaluation for the freeway and expressed that the Community holds all animals in the highest regard and recognizes animals as culturally important. The letter included a list of plant and animal species that are culturally important to the Community. The Biological Evaluation for the freeway was revised to incorporate an evaluation of the identified species (see page 4-127 of the FEIS). ADOT and FHWA have committed to continue coordination with AGFD, the Community Department of Environmental Quality, and USFWS regarding wildlife concerns as a result of the freeway's implementation. The analysis of biological resources may be found beginning on page 4-125 of the FEIS. FHWA made "no effect" findings for all listed and candidate species except for the Tucson shovel-nosed snake and Sonoran desert tortoise. The Tucson shovel-nosed snake was subsequently removed from the Candidate species list in a decision by USFWS on September 23, 2014. Mitigation measures to conduct preconstruction surveys for the Sonoran desert tortoise, where appropriate and after consultation with AGFD, were included in the FEIS (see page 4-138). These commitments are confirmed in Table 3, beginning on page 38.

The freeway will be designed to protect and maintain opportunities for wildlife movement between the South Mountains, Gila River, and Sierra Estrella. These opportunities will be located in the region where the South Mountain Freeway will intersect the southwestern portion of the South Mountains. Some drainage structures incorporated into the roadway plans will be designed to accommodate multifunctional crossings in appropriate locations that will allow limited use by the Community and will also serve wildlife. These crossing structures and associated fences will be designed to reduce the incidence of vehicle-wildlife collisions and to reduce the impact of the freeway on wildlife connectivity between the South Mountains, Gila River, and Sierra Estrella. ADOT will coordinate with the USFWS, AGFD, and the Community's Department of Environmental Quality during the design phase regarding the potential for locating and designing wildlife-sensitive roadway structures.

ISSUE: CHILDREN'S AND SENIORS' HEALTH

Frequent comment: *Commenters expressed concern that exposure to emissions from the South Mountain Freeway could adversely affect children's and seniors' health.*

Response: As noted throughout the FEIS, potential impacts on and subsequent mitigation for human health are disclosed and identified, as inherent in the EIS process. The FEIS incorporates an assessment of the potential impacts of the project on all populations, including children, in the Chapter 4 environmental consequences analyses. A discussion addressing children's health was added to page 4-83 of the FEIS.

While there is ample evidence that *air pollution* has the potential for greater adverse impacts on children compared with the population at large, this does not imply that the project will have disproportionate impacts on children. The project itself will affect all near-road populations equally; it does not include elements that would lead to higher air pollutant concentrations near children compared with other receptors. The FEIS evaluates Clean Air Act criteria air pollutant concentrations in Maricopa County and the Phoenix area (see pages 4-75 to 4-77). With regard to air quality impacts, the FEIS addresses children's and seniors' health impacts within the broader discussion regarding health impacts under the NAAQS. Clean Air Act Section 109(b)(1) requires the EPA to promulgate primary NAAQS at levels that allow an adequate margin of safety and that are requisite to protect the public health. As noted by the EPA in its 2013 rulemaking for particulate matter, Clean Air Act Section 109's legislative history demonstrates that the primary standards are "to be set at the maximum

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permissible ambient air level ... which will protect the health of any [sensitive] group of the population” (78 *Federal Register* 3086 and 3090) (quoting S. Rep. No. 91 1196, 91st Cong., 2 Sess. 10 [1970]) (alterations in original). Accordingly, the FEIS’s NAAQS-based evaluation of criteria air pollutants includes a health-based review of sensitive populations, including children and seniors, given the NAAQS’ inherent consideration of those factors. Furthermore, the NAAQS-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 *Federal Register* 3090).

Since the FEIS analysis of the NAAQS, conducted in consultation with EPA, showed that no violations of the NAAQS would occur along the project, and since EPA’s NAAQS protect children’s and seniors’ health with an adequate margin of safety, the project has no adverse impacts on children’s or seniors’ health.

ISSUE: COMMUNITY IMPACTS

Frequent comment: Commenters expressed a concern that the freeway will adversely affect the livability of their neighborhoods.

Response: As noted in Table 4-9 on page 4-27 of the FEIS, the South Mountain Freeway will visually and audibly intrude on the less-intensive, passive, residential character of the area. The magnitude of impact will be offset by the fact that the freeway will replace the existing four lane Pecos Road. Pecos Road, although to a lesser degree than will occur with the freeway, now visually and audibly intrudes on the village. Further, the impact will not be “new” to the village, considering that I-10 (Maricopa Freeway) and the I-10/SR 202L/Pecos Road system traffic interchange border the village on the east and that either or both are used regularly by village residents.

ISSUE: CRIME

Frequent comment: Commenters expressed a concern that the freeway will increase crime in their neighborhoods.

Response: While the City of Phoenix Police Department reported in 2005 that it did not have any statistics specific to crime adjacent to freeways, it did note that based on its experience there does not appear to be a correlation between crime rates and freeways.

ISSUE: CULTURAL RESOURCES

Frequent comment: Commenters expressed a belief that the project team had not considered impacts on prehistoric sites or cultural heritage in the analysis.

Response: Since the beginning of the environmental impact statement process, FHWA and ADOT have been carrying out cultural resource studies and engaging in an ongoing, open dialogue with the Community Tribal Historic Preservation Office (THPO) and other Tribes to understand the Native American’s way of life and to identify and evaluate places of religious, spiritual, and cultural importance to the Community and other Tribes that may be adversely affected by the freeway. Such places may be referred to as TCPs. As a result of these discussions and of studies conducted by the Community’s Cultural Resource Management Program, the Community and other Tribes have identified TCPs that are eligible for listing in the NRHP and that could be affected by construction of the freeway. The religious, spiritual, and cultural importance of the South Mountains is acknowledged in the FEIS in several locations, notably page 5-26. The project will accommodate and preserve (to the fullest extent possible from the available alternatives) access to the South Mountains for religious practices. For more discussion of TCPs, see the section, *Cultural Resources*, beginning on page 4-140 of the FEIS and pages 5-26 through 5-28.

Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires a government-to-government relationship between the federal government and Native American Tribes as described beginning on page 4-140 of the FEIS. Section 106 requires that federal agencies take into account the effects of their undertakings on historic properties. This process requires consultation with State Historic Preservation Officers (SHPOs) and tribal authorities. Consultation has occurred with Community government officials, the THPO, the Cultural Resource Management Program, many different tribal authorities, and the SHPO. The consultation regarding all historic properties in the area of potential effects has resulted in concurrence from the Community THPO, other tribal authorities, and the SHPO on NRHP eligibility recommendations

(including TCPs), project effects, and proposed mitigation and measures to minimize harm. This consultation has been ongoing and will continue until the commitments in the ROD are completed.

ISSUE: DESIGN

Frequent comment: Commenters questioned the elevation or grade of the freeway.

Response: The freeway will have a rolling profile (see page 3-41 of the FEIS) and will be elevated to pass over arterial streets. To maximize the effectiveness of noise walls and to minimize costs, walls are normally constructed on the elevated grades with the freeway.

ISSUE: ECONOMICS, SOCIOECONOMICS

Frequent comment: Commenters expressed a concern that the freeway will reduce the value of their homes or properties.

Response: A review of the literature revealed few detailed and comprehensive analyses of the relationship between transportation infrastructure and residential property values (Transportation Research Record: Journal of the Transportation Research Board, No. 2174, Transportation Research Board of the National Academies, Washington, D.C., 2010, pp. 138-47; “Residential Property Values and the Built Environment; Empirical Study in the Boston Massachusetts Metropolitan Area”). A local case study concerning US 60 (Superstition Freeway) found that 1) freeway construction may have an adverse impact on some properties but, in the aggregate, property values tend to increase with freeway development; 2) freeways do not affect all properties’ values in the same way (proximity to the freeway was observed to have a negative effect on the value of detached single-family homes in the corridor but a positive effect on multifamily residential developments and most commercial properties); 3) the most important factor in determining negative impact on property values appears to be the level of traffic on any major roads in the proximate area, which implies that regional traffic growth is more significant than the presence of a freeway per se (Journal of the Transportation Research Board, No. 1839, Transportation Research Board of the National Academies, Washington, D.C., 2003, pp. 128-135; “Impact of Highways on Property Values: Case Study of Superstition Freeway Corridor”). The California Department of Transportation has studied this subject for a number of years. Its *Standard Environmental Reference Handbook, Volume 4, Appendix D, Transportation Effects on Property Value* concludes that while a majority of studies found that properties abutting the freeway do not appreciate as rapidly as other properties a little farther away from the freeway, there is a net gain in value in the general vicinity of the freeway attributable to increased accessibility to the regional freeway system. In other words, houses in both the abutting and the nearby zones appreciated more than comparable properties a few miles away from the freeway.

ISSUE: ENVIRONMENTAL JUSTICE

Frequent comment: Commenters expressed a belief that the proposed project constituted an illegal action with respect to environmental justice.

Response: ADOT and FHWA, as the federal lead agency, have an obligation under NEPA to assess whether the proposed action and its alternatives would lead to substantial adverse environmental impacts, disclose those impacts, and identify mitigation to reduce the impact to below a level of significance (and if such mitigation is unavailable, disclose that such an impact would occur but would not be mitigated). The section entitled *Environmental Justice and Title VI*, beginning on page 4-29 in the FEIS, presents acceptable methods, data, and assumptions to assess the potential for disproportionately high and adverse effects from the proposed action on environmental justice populations.

Based on the content of the section, no such effects would result from the action alternatives. Even if one were to reach a contrary conclusion and determine that disproportionately high and adverse effects would occur as a result of the freeway, there is substantial justification for the freeway. It is needed to serve projected growth in population and accompanying transportation demand and to correct existing and projected transportation system deficiencies (see Chapter 1, *Purpose and Need*, in the FEIS). There is no feasible and prudent alternative to the use of the South Mountains, as discussed in Chapter 5, *Section 4(f) Evaluation*, in the FEIS.

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ISSUE: FREEWAY AWARENESS

Frequent comment: Commenters expressed that they were not made aware of the potential project when they moved into an area located near the previously approved alignment.

Response: As noted on page 4-13 of the FEIS, the City of Phoenix first documented a future major transportation facility to serve the southwestern part of Phoenix in a 1980 planning report, *Annexation Implications in the Area South of South Mountain Park*. The City of Phoenix recommended constructing a six-lane freeway interchange on Pecos Road and a six-lane street from I-10 (Maricopa Freeway) west on Pecos Road and continuing northwest to 51st Avenue (City of Phoenix 1980). In 1985, MAG modified the proposal by proposing a future six-lane freeway on a similar alignment (instead of the six-lane street). The MAG proposal was included in the 1985 *Long-Range Transportation Plan*, and the evolved South Mountain Freeway has been included in adopted long-range plans ever since.

With the Study Area subject to continued land development projects, the proposed action will require acquisition of developed properties and relocation of property owners for R/W where there was once mostly vacant land. Public comments received from potentially affected property owners as part of the EIS process suggest the City of Phoenix, land developers, and ADOT did not disclose the future freeway project. Review of previously published ADOT, City of Phoenix, MAG, and developer documents confirms freeway project and alignment disclosure has occurred since 1980, when the Study Area was still primarily vacant land.

Since original adoption of the South Mountain Freeway alignment (an alignment similar to the W59 and E1 Alternatives) in 1984, ADOT has purchased some R/W in the Western and Eastern Sections (the original alignment and locations of property owned by ADOT in 2000 are shown in maps on page 4-12 and 4-13 of the FEIS). In the same time period, the City of Phoenix has approved six planned community districts adjacent to the eastern alignment. These developments are Lakewood, Foothills, Pecos Road, Goldman Ranch, Foothills Reserve, and South Mountain 620. Approvals for these require developers to inform potential buyers of conflicts with planned transportation projects such as the proposed action. These mechanisms include:

City of Phoenix responsibility – Stipulations referring to the freeway alignment were included in the zoning cases for each of the developments, except for the Lakewood Planned Community District. The Circulation Master Plan for the Lakewood Planned Community District identifies the clean take line (the line where subdivisions are severed for the freeway and the remaining properties continue to function as intended) for the future freeway.

Developer responsibility – Arizona real estate law requires developers to disclose adverse conditions such as construction of a future freeway in a public document [5 Arizona Administrative Code 650, R4 28-A1203]. Additionally, Arizona law states that subsequent purchasers have the right to “receive a copy of the public report” and “any contract, agreement or lease which fails to make disclosures . . . shall not be enforceable against the purchaser” (5 Arizona Revised Statutes § 32-2185.06). Developers typically disclose adverse conditions in the covenants, conditions, and restrictions document, which is provided to potential buyers who in turn are required to acknowledge they have received and read the covenants, conditions, and restrictions by signing documents provided during the closing period of the sale.

ADOT responsibility – ADOT uses the “Red Letter” process to coordinate planned transportation projects with proposed developments within local jurisdictions. Local jurisdictions are requested to notify ADOT of potential development plans within ¼ mile of established or proposed project corridors. ADOT assigns a Red Letter Coordinator to review the proposed development projects and to provide a written response explaining the transportation project’s potential effects on the proposed developments.

ISSUE: HAZARDOUS MATERIALS

Frequent comment: Commenters expressed a concern that the study did not adequately address the possibility of a hazardous materials spill on the freeway.

Response: According to 46 *Federal Register* 18026 (March 23, 1981), an EIS must discuss reasonably foreseeable actions. These are actions that are likely to occur or probable, rather than those that are merely possible. There are no requirements in 23 C.F.R. Part 771, Environmental Impact and Related Procedures, or in FHWA’s Technical Advisory T 6640.8A,

Guidance for Preparing and Processing Environmental and Section 4(f) Documents, to address releases of hazardous chemicals resulting from a transportation incident in NEPA documents for transportation projects such as the proposed action. Planning for emergency situations will be initiated as the project moves into design.

Issues related to a severe accident exist for many portions of the Phoenix metropolitan area. A fast and effective response is critical in the emergency response plans prepared by emergency service providers and is discussed on page 4-166 of the FEIS.

Arizona highways, as with 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. ADOT 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 I-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 is expected to operate under the same rules as other similar facilities in the state; transport of hazardous cargo is expected to be allowed (see text box on page 4-166 of the FEIS).

ISSUE: HEALTH EFFECTS

Frequent comment: Commenters expressed concern that the South Mountain Freeway will be located within half a mile of schools and other sensitive locations, and that exposure to emissions from the South Mountain Freeway could lead to asthma, autism, and other adverse health effects.

Response: Under the Clean Air Act, EPA is responsible for establishing NAAQS to protect public health and the environment from adverse effects of air pollutants. Health effects from air pollutants are based on the concentration of the pollutants and the duration of exposure. Concentrations vary with distance from a roadway based on many factors, including background (or ambient) levels of pollution from all sources; the number, speed, and type of vehicles on the roadway; wind speed and direction; topography; and other factors. For the freeway, modeling for CO and PM₁₀ was conducted using worst-case (most congested or highest traffic) modeling locations at discrete receptor locations around each analysis location (primarily residences near the interchanges). The CO and PM₁₀ analyses demonstrated that the freeway will not contribute to any new localized violations, increase the frequency or severity of any existing violation, or delay timely attainment of the NAAQS or any required interim emissions reductions or other milestones (see discussion beginning on pages 4-75 and 4-76 of the FEIS, respectively).

MSATs can also have adverse health impacts, but EPA has not established NAAQS for these pollutants. As a result, FHWA analyzes these pollutants using emissions analyses. The MSAT emissions analysis for the Study Area found little difference in total annual emissions of MSATs between the Preferred and No-Action Alternatives (less than a 1 percent difference) in 2025 and 2035. With the Preferred Alternative in 2035, modeled MSAT emissions will 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 (see discussion beginning on page 4-78 of the FEIS).

Many studies have investigated the prevalence of adverse health effects in the near-road environment. Given concerns about the possibility of air pollution exposure in the near-road environment, the Health Effects Institute has dedicated a number of research efforts toward investigating this issue. In November 2007, the Health Effects Institute published Special Report #16: *Mobile-Source Air Toxics: A Critical Review of the Literature on Exposure and Health Effects*. This report concluded that the cancer health effects attributable to mobile sources are difficult to discern because the majority of quantitative assessments are derived from occupational cohorts with high concentration exposures and because some cancer potency estimates are derived from animal models. In January 2010, the Health Effects Institute released Special Report #17, investigating the health effects of traffic-related air pollution. The goal of the research was to synthesize available information on the effects of traffic on health. Researchers looked at linkages between: 1) traffic emissions (at the tailpipe) with ambient air pollution in general, 2) concentrations of ambient pollutants with human exposure to pollutants from traffic, 3) exposure to pollutants from traffic with human-health effects and toxicological data, and 4) toxicological data with epidemiological associations. Overall, researchers felt that there was “sufficient” evidence for causality for the exacerbation of asthma (see page 25 of the air quality technical report [2014]). Evidence was “suggestive but not sufficient” for health outcomes such as cardiovascular mortality and others. Study authors also noted that past epidemiological

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studies may not provide an appropriate assessment of future health associations because vehicle emissions are decreasing over time. Finally, in 2011 three studies were published by the Health Effects Institute evaluating the potential for MSAT “hot spots.” In general, the authors confirmed that while highways are a source of air toxics, they were unable to find that highways were the only source of these pollutants. They determined that near-road exposures were often no different or no higher than background (or ambient) levels of exposure and, hence, no true hot spots were identified. These reports are available from the Health Effects Institute’s Web site at <healtheffects.org>. FHWA and EPA provide financial support to the Health Effects Institute’s research work.

Another source of information is EPA’s recently released report on Children’s Health and the Environment:

The level of knowledge regarding the relationship between environmental exposures and health outcomes varies widely among the topics [presented in this report], and the inclusion of an indicator in the report does not necessarily imply a known relationship between environmental exposure and children’s health effects. The report provides data for selected children’s health conditions that warrant further research because the causes, including possible contributing environmental factors, are complex and not well understood at this point.

In the case of asthma, researchers do not fully understand why children develop the condition. However, substantial evidence shows exposure to certain air pollutants, including particulate matter and ozone, can trigger symptoms in children who already have asthma. Although the report found the percentage of children reported to currently have asthma increased from 8.7 percent in 2001 to 9.4 percent in 2010 and that minority populations are particularly affected by asthma, the severity of children’s asthma and respiratory symptoms has declined. The rate of emergency room visits for asthma decreased from 114 visits per 10,000 children in 1996 to 103 visits per 10,000 children in 2008. Between 1996 and 2008, hospitalizations for asthma and for all other respiratory causes decreased from 90 hospitalizations per 10,000 children to 56 hospitalizations per 10,000 children.

The report also looks at trends in other health conditions, such as Attention-Deficit/Hyperactivity Disorder (ADHD) and preterm births, for which rates have increased. There is no conclusive information on the role of environmental contaminants in ADHD or preterm births, and additional research is ongoing.

Finally, FHWA notes that while the incidence of some health effects (such as asthma, autism, and attention deficit/hyperactivity disorder) in the U.S. population appears to have been increasing, motor vehicle emissions have declined. This decline in MSAT emissions is documented in Figure 4-24 of the FEIS and for other pollutants at <epa.gov/ttn/chief/trends/>. This negative correlation between emissions trends and health effects trends illustrates the complexity of the issues.

In summary, the analyses for CO and PM₁₀ indicated that concentrations for these pollutants will be in compliance with (or below) EPA’s health-based standards for these pollutants. As explained in the FEIS, FHWA does not conduct comparable analysis for MSAT pollutants, in part because EPA’s health risk guidelines for these pollutants are based on 70-year exposure, and it is extremely unlikely that anyone would be at a fixed location near the project for 70 continuous years. Instead, FHWA conducted an MSAT emissions analysis for the area affected by the project, and found that emissions in the project design year will be roughly 80 percent lower than current emissions, and that the difference between building and not building the project is only about 1 percent. Emissions will increase in the immediate vicinity of the project corridor if the project is built; to address this, the FEIS includes a summary of past health risk studies for similar projects, all of which identified very low health risk, well below EPA’s Action Level for addressing risk.

ISSUE: NOISE

Frequent comment: Commenters expressed concerns about the increase in noise from the freeway.

Response: The noise analysis conducted for and documented in the DEIS and FEIS complied with FHWA’s regulations for conducting noise analyses in 23 C.F.R. § 772. The noise analysis was updated for the FEIS using the most recent FHWA and ADOT policy and traffic projections provided by MAG. Discussion of this updated analysis begins on page 4-88 of the FEIS. No substantial differences between the analyses presented in the DEIS and the FEIS resulted. This report may also be found on the study Web site at <azdot.gov/southmountainfreeway>.

Without noise mitigation, noise levels from the 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 FEIS beginning page 4-93). Because of topography, local street traffic, or other engineering constraints in a few areas, estimated noise levels will not be reduced as much and will be as high as 64 A-weighted decibels to 70 A-weighted decibels (see FEIS beginning on page 4-93).

Although not recognized by the FHWA as mitigation, rubberized asphalt will be used as the top level of paving; it is discussed beginning on FEIS page 4-99.

ISSUE: PROJECT COSTS, TOTAL COST

Frequent comment: Commenters claimed that the true cost of the freeway will be substantially higher than the cost presented in the FEIS.

Response: As noted on page 3-59 and in the text box on page 3-60 of the FEIS, planning-level cost estimates are used in the preparation of environmental documents. Figure 3-36 summarizes overall planning-level cost estimates for each action alternative. These estimates include design, R/W acquisition, and construction. Costs will be updated during the design phase and will be reflected in the RTP update process. Updating costs is critical to account for cost fluctuations for materials, land acquisition, and design refinements.

From October 28 through October 30, 2014, a formal cost estimate review was conducted in accordance with SAFETEA-LU guidelines. The official review determined a probability and range for the cost of the Selected Alternative in the expected year of expenditure and in current year dollars. The year of expenditure total cost at the 70 percent confidence level was \$1.9 billion. The costs associated with planned mitigation are included in the total project cost.

ISSUE: PURPOSE AND NEED, LACK OF SUPPORT

Frequent comment: Commenters expressed opposition to the freeway based on a lack of need or the belief that it is not supported by local communities or that it will not be used by local travelers or regional commuters.

Response: It is important and fiscally prudent to provide a new freeway in an area where it will be fully used. Of the projected 51 percent increase in population, 39 percent increase in housing units, and 69 percent increase in jobs between 2010 and 2035 in the Phoenix metropolitan area, nearly half of these increases are expected in areas that would be immediately served by the freeway (see FEIS page 1-21). When ADOT determines whether a freeway should be built, the agency must consider numerous factors, including local and regional transportation needs, project costs, and environmental considerations. Decisions regarding freeway projects are based on the transportation needs of the entire Phoenix metropolitan area as part of a comprehensive, multimodal, regional approach. The South Mountain Freeway is a major component in the Regional Freeway and Highway System. Additionally, the freeway is an important component of past and current planning efforts. Maricopa County, Phoenix’s villages (Laveen, Estrella, and Ahwatukee Foothills), Tolleson, and Avondale have all made transportation, land use, and economic planning decisions in a context of the freeway operating in the Study Area. Finally, the freeway will function as intended in the RTP.

ISSUE: PURPOSE AND NEED, OLD PLAN OR USE OF OLD DATA

Frequent comment: Commenters expressed concerns that the project is based on a plan from the mid-1980s and that the study used older data (prior to the economic downturn) to establish the purpose and need for the freeway.

Response: MAG is the local government agency responsible for traffic forecasting. MAG’s travel demand model is a state-of-the-practice model that predicts traffic movement and is used by MAG and ADOT to determine the need for transportation projects. The model is calibrated to actual, observed traffic conditions and meets an advanced practice guideline by FHWA for similarly sized areas. FHWA and EPA approved the air quality conformity determination that includes the MAG regional travel demand model that produced the traffic projections used in the traffic analysis for the project. Key model inputs used to forecast travel demand included (see Table 3-7 on FEIS page 3-27):

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- socioeconomic data based on the adopted general plans of MAG members, which includes projected growth in population, housing, and employment (including proposed commercial centers), along with economic forecasts and the existing and planned transportation infrastructure as identified by MAG members
- the anticipated average number of vehicle trips within the region (including those to and from the region's households) on a daily basis (this number is tracked regularly by MAG)
- the distribution of transportation modes used by travelers in the MAG region (also tracked regularly by MAG)
- the capacity of the transportation infrastructure to accommodate regional travel
- the future transportation infrastructure established using RTP-planned projects and improvements and from known arterial street network improvements assumed to be made by the County, Cities, and private developers

In June 2013, MAG approved new socioeconomic projections for Maricopa County. The purpose and need and analysis of alternatives were updated and reevaluated using these new socioeconomic projections and corresponding projections related to regional traffic. The conclusions reached in the DEIS were validated in the FEIS (see Chapter 3, *Alternatives*, in the FEIS).

ISSUE: PURPOSE AND NEED, TRUCK BYPASS

Frequent comment: Commenters expressed a belief that the freeway will serve as a truck bypass.

Response: Creating a truck bypass is not a goal of the freeway. The 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 FEIS) in the Phoenix metropolitan area. The South Mountain Freeway will be a commuter corridor, helping to move regional traffic. As with all other freeways in the region, trucks will 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 vehicles using the freeway will be automobiles. The MAG regional travel demand model projects that truck traffic will represent approximately 10 percent of the total traffic on the freeway, similar to what is currently experienced on other regional freeways such as I-10, SR 101L, and US 60. As disclosed in the FEIS, it is expected that “true” through-truck traffic (not having to stop in the metropolitan area) will continue to use the faster, designated, and posted bypass system of Interstate 8 (I-8) and SR 85 (see page 3-64 of the FEIS).

ISSUE: SECTION 4(f) AND SECTION 6(f), PHOENIX SOUTH MOUNTAIN PARK/PRESERVE

Frequent comment: Commenters expressed concerns about the impacts the freeway will have on SMPP or expressed that the park should be protected.

Response: The context and attributes of the South Mountains are described in the FEIS. The discussion of SMPP as a Section 4(f) resource recognizes that many prominent features of the park contribute to its value. These include its setting as one of the largest urban parks in the country, its function in the Phoenix Sonoran Preserve System, and many prominent features within the park, including its trails, which offer opportunities to over 3 million annual visitors for hiking, bicycling, horseback riding, and interacting with the natural Sonoran Desert adjacent to the metropolitan area. Sections of the freeway will be visible from certain vantage points within the park, such as along the Bursera Trail. As part of the planning to minimize harm to the park, measures to minimize the effects of altering the views include:

- reducing the freeway's footprint from the original 40 acres as proposed in 1988 to the 31.3 acres planned for under the current design
- skirting the park as much as possible to avoid bisecting the 16,000-acre park
- providing replacement lands to compensate for the use of 31.3 acres of the park
- using slope treatments, rock sculpting, native vegetation landscaping and buffering, and native vegetation transplanting to blend the appearance of the freeway and slope cuts with the surrounding natural environment, as feasible
- working with park stakeholders through the City of Phoenix in finalizing these improvements

The freeway will also generate noise that will be audible from certain points in the park, such as trails, as acknowledged in the FEIS; however, based on the distance of the freeway to the closest trail points, noise levels are not likely to be above the noise abatement criteria levels for recreational activities. Trail users located 2,000 feet or more away from the freeway will hear an increased hum, but the decibel levels will not be above noise abatement criteria levels for recreational activities. While noise mitigation was evaluated to minimize harm, the use of mitigation, such as noise barriers, would have little effect for receptors 2,000 feet or more away from the freeway (and at elevated positions). Even if it were shown that noise levels are higher on the trail, noise barriers would not be cost effective for trails given the relatively low usage and receptor benefits. Noise impacts would be temporary because trail users would be moving along the trail and because only a short portion of the trail is in a direct line to the freeway.

The acreage of parkland to be converted to a transportation use is reported in the FEIS on page 5-14 in the section, *Direct Use*. It is reported that 31.3 acres—or just less than 0.2 percent of the parkland—will be converted to a transportation use (this is a reduction in the amount of use planned for in 1988). The text goes on to point out other concerns associated with the direct use reported, and text in the FEIS on page 5-14, in the sidebar, “*The South Mountains in Phoenix's Sonoran Preserve System*,” describes the importance of SMPP in the region. Beginning on page 5-23 in the section, *Measures to Minimize Harm*, measures are presented to be undertaken to address the use impacts, including land replacement, on properties adjacent to the park.

City of Phoenix planning efforts since the mid-1980s illustrate an awareness of the potential for the freeway to affect SMPP. 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 Phoenix 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 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 freeway to go through SMPP (see page 5-14 of the FEIS). The project team examined alternatives to avoid the park, but did not identify any feasible and prudent alternatives to avoid impacts. The proposed freeway was designed to skirt the edge of the 16,000-acre park without going on Community land. ADOT continues to work with park stakeholders to minimize impacts and address concerns. Measures to minimize harm to the park were developed (see FEIS, starting on page 5-23). These commitments are confirmed in Table 3, beginning on page 38.

The U.S. Department of the Interior reviewed the FEIS and commented, “The Department agrees that the South Mountain Park and Preserve (SMPP) is a Land and Water Conservation Fund (LWCF) assisted site that will be directly impacted by the subject project. These documents assess the direct use of park land for freeway purposes to be 31.3 acres. We agree with the conclusions stated. We note that the “*Measures to Minimize Harm*” on the Section 4(f) Statement pages 5-23, 5-24, and 5-25 have annotated a commitment to provide replacement land for the converted park land. The Department concurs with the assessment of the impacts to the LWCF-assisted resource and acknowledges the mitigation commitment.”

ISSUE: SECTION 4(f) AND SECTION 6(f), TRADITIONAL CULTURAL PROPERTIES

Frequent comment: Commenters expressed that the South Mountains are sacred to Native American communities and should be protected from impacts from the freeway.

Response: Cultural and religious places of importance, such as the South Mountains, are acknowledged in the FEIS in several locations, notably on pages 4-141 and 5-26. Since the beginning of the EIS process, FHWA and ADOT have been carrying out cultural resource studies and engaging in an ongoing, open dialogue with the Community THPO and other Tribes regarding the identification and evaluation of places of religious and cultural importance to Native Americans that may be adversely affected by the freeway. This consultation will continue until all commitments in the ROD are completed. Such places are referred to as TCPs. As a result of these discussions and of studies conducted by the Community's Cultural Resource Management Program, the Community has identified TCPs that are eligible for listing in the NRHP and that could be affected by construction of the freeway. In certain cases, listing these properties on the NRHP may afford them

(text box continues on next page)

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protection under Section 4(f) of the Department of Transportation Act of 1966. The TCPs identified are culturally important to other Native American Tribes as well. For more discussion of TCPs, see the section, *Cultural Resources*, beginning on page 4-140 of the FEIS and pages 5-26 through 5-28.

While impacts on the South Mountains TCP will be substantial and unique in context, they will not prohibit ongoing access and the cultural and religious practices by Native American Tribes. Mitigation measures and measures to minimize harm have been developed through a process of extensive consultation, analysis of avoidance alternatives, and development of mitigation strategies to accommodate and preserve (to the fullest extent possible from the available alternatives) access to the South Mountains for religious purposes. Text relating to this mitigation can be found on pages 4-38, 4-42, and 4-44 of the FEIS. Additionally, the section, *Mitigation*, beginning on page 4-158, presents several measures (e.g., multifunctional crossings, contributing element avoidance) to mitigate effects on cultural resources. The section, *Measures to Minimize Harm*, beginning on page 5-27, presents several measures to reduce effects on the South Mountains TCP and other cultural resources. These commitments are confirmed in Table 3, beginning on page 38.

ISSUE: TITLE VI

Frequent comment: Commenters expressed a belief that the proposed project constituted an illegal action with respect to Title VI.

Response: ADOT and FHWA have engaged all population segments to ensure access to the EIS process. Assisted by this involvement, analytical results indicate the proposed action would benefit all populations in the Study Area in general by reducing traffic congestion, enhancing accessibility, and supporting local economic development plans. There were many targeted efforts to include members of populations protected under Title VI (with regard to race and national origin) in the conduct of the EIS process. In the FEIS, Chapter 6, *Comments and Coordination*, describes these efforts in detail and Chapter 2, *Gila River Indian Community Coordination*, describes the efforts to involve the Community.

To optimize the opportunity for public participation in the public hearing on the DEIS and, in particular, participation from identified populations protected under Title VI, ADOT offered free shuttle bus service to and from the public hearing located at the Phoenix Convention Center. Service was provided throughout the day (morning, noon, and evening trips) to and from 91st Avenue and Van Buren Street, 59th Avenue and I-10, Laveen Southern Ridge Golf Club, the Community's Komatke Boys and Girls Club, the Community Governance Center in Sacaton, and the 40th Street Park-and-Ride lot. In addition, parking vouchers and transit passes were provided at the public hearing for participants who drove or used transit services to attend the public hearing (see Chapter 6 of the FEIS for more detailed information). The public hearing was advertised in Spanish-language newspapers and radio stations, and public hearing handouts and comment forms were produced in English and Spanish. In addition, Spanish-speaking court reporters were present to take public comments in Spanish, and Native American language-speaking interpreters were available for those that requested this service. Following the public hearing, six community forums were held at the following locations: in the Estrella, Laveen, and Ahwatukee Foothills villages of Phoenix; within the Community; and in Chandler and Avondale.

In connecting the eastern, southeastern, and southwestern regions of the Phoenix metropolitan area, the Selected Alternative will provide improved access for all area residents to key employment areas to the north, south, and east along the I-10 corridor and in central Phoenix. Improvements will be especially important given the projected growth and development in the southwestern Phoenix metropolitan area. Along with the general population, populations protected under Title VI will benefit from these improvements. Accessibility to regional public and private facilities and services will be improved. Impacts in the Eastern Section of the Study Area will displace a largely nonminority population. Although the population in the Western Section of the Study Area is more diverse—with minority populations throughout—adverse impacts will not be predominantly borne by minority populations. Although no disparate adverse impacts on populations afforded protection under Title VI will occur, mitigation measures are nonetheless provided for impacts associated with displacements and relocations and cultural resources (see Table 3, beginning on page 38).

Land acquisition and relocation assistance services for the project shall be available to all individuals in accordance with the Uniform Act (49 C.F.R. Part 24). As part of the Uniform Act, ADOT and its consultants and contractors must prevent discrimination in all highway programs and must ensure compliance with Title VI, as amended (42 U.S.C. § 2000d, et seq.). Accordingly, no person can be excluded from participation in, be denied the benefits of, or in any other way be subjected to discrimination under any federally funded program or activity because of his or her race, color, or national origin. For this project, all eligible displaced people would receive the same opportunities with regard to services, benefits, and financial aid. To ensure participation, informational meetings would be scheduled in convenient, accessible locations and at various times to ensure all interested persons the opportunity to attend.

With regard to impacts on places of spiritual importance to certain population segments, such as the South Mountains TCP, that raise potential Title VI concerns with respect to Native American Tribes, in particular, the Community, extensive consultation, avoidance alternatives analyses, and mitigation measures are discussed throughout the FEIS. A sampling of these efforts is noted on page 4-38 of the FEIS. This consultation has been ongoing and will continue until all commitments in the ROD are completed. These mitigation measures and measures to minimize harm accommodate and preserve (to the fullest extent possible from the available alternatives) access to the South Mountains for religious practices (see Table 3, beginning on page 38).

ISSUE: TRUCKS

Frequent comment: Commenters expressed a belief that the freeway will be the primary route for heavy trucks originating in Mexico and that this will result in air quality impacts not considered in the study.

Response: Trucks crossing from Mexico to Arizona are restricted to the commercial zones within 25 miles of the border. The Federal Motor Carrier Safety Administration is administering a United States-Mexico cross-border, long-haul trucking pilot program. The program tests and demonstrates the ability of Mexico-based motor carriers to operate safely in the United States beyond the municipalities and commercial zones along the United States-Mexico border (see <fmcsa.dot.gov/intl-programs/trucking/trucking-program.aspx>).

Petróleos Mexicanos (better known as Pemex), the Mexican state-owned petroleum company that serves all of Mexico, provides 15 parts per million in its sulfur diesel fuel in the border region, which is consistent with EPA requirements for American diesel fuel (see <transportpolicy.net/index.php?title=Mexico:_Fuels:_Diesel_and_Gasoline>).

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 South Mountain Freeway will operate under the same rules as other similar facilities in the state; truck traffic will be permissible (see text box on FEIS page 4-166).

The CANAMEX and Phoenix truck bypass (I-8/SR 85) routes are not mandatory for truck traffic; they are recommended. ADOT does not enforce these routes. It is not anticipated that these routes would be enforced as mandatory in the future.

Currently, with commercial zone restrictions, Mexican truck carriers bring cargo to processing warehouses in the commercial zone. There they leave the trailer, and the truck returns to Mexico. A U.S. truck carrier then picks up the load and transports it to its final destination. So, whether it is a Mexican truck carrier or U.S. truck carrier who transports the cargo to the final destination, it is not anticipated that the total number of trucks would change even if the commercial zone restrictions are lifted. Further, because fuel sold by Pemex meets the same requirements for American diesel fuel (as noted previously), an increase of air pollutants is not anticipated should the restrictions be lifted. The air quality analysis included projected truck traffic (for more details on the results of the air quality analysis, see the previous response for *Air Quality*)