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| 307 | As discussed in subsection (b) above, FHWA and ADOT lacked critical cultural expertise and input that could have more accurately shaped the scope of the technical services used to identify the known and potential cultural resources at issue by not making reasonable and good faith efforts to engage the above-referenced tribes. Should the critical consultation with all tribes have been performed as required by the Section 106 regulations, the footprint of the cultural resources identified would be more accurate and would unquestionably fulfill applicability of cultural significance under the NRHP and National Historic Preservation Act. Further, all tribes were not afforded the opportunity early in the project planning to properly select a qualified contractor to perform the cultural resources studies, many of which the FHWA and the ADOT improperly puts off until the "design phase". The scope of work and approving the qualifications of the identifier of cultural sites are critical procedural oversights when tribal input is absent. |
| | **d. Because FHWA and ADOT failed to fully inform Section 106 consulting parties of the potential environmental impacts of the Freeway project, the consulting parties were unable to provide accurate input on the assessment of adverse effects of all known historic properties.** |
| 308 | Consulting parties and tribes not consulted were not afforded the technical data available to FHWA and ADOT regarding the substantial risk to the environment prior to the close of the Section 106 process. For example, the consulting parties were not timely provided certain reports, including but not limited to the Environmental Protection Agency's Joint Air Toxic Assessment Project issued in 2005. The deficiencies in the initiation of the Section 106 process combined with the lack of data known to the FHWA and ADOT unquestionably left the consulting parties and tribes not consulted at a disadvantage. Tribes involved in the project, whether consulted or not, are unable to provide meaningful consultation in the Section 106 process when the FHWA and ADOT withholds information that may impact the parties' input on the assessment and mitigation processes within the regulations. |
| 309 | If the E1 Alternative were built, there are eight confirmed Traditional Cultural Properties that would be adversely affected. Those properties include petroglyphs, artifact scatter, and prehistoric trails. The DEIS and other associated cultural reports do not provide any concurrence on the improperly scoped traditional cultural studies by the parties and non-consulted tribes and does not demonstrate completion of the Section 106 process, particularly the mitigation measures to be invoked. |
| 310 | Until the FHWA and ADOT conforms wholly with informed meaningful consultation with consulting parties and affected tribes, the Section 106 process will remain incomplete and non-compliant. |

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| 308 | **Cultural Resources** | As noted in Table 4-47, which begins on page 4-145, and also on page 4-159 of the Final Environmental Impact Statement, all tribes were contacted early in the study and have been consulted on many aspects of the study, including the cultural resource-related reports produced over the course of the study.<br>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. As stated above, Section 106 requires federal consultation with tribal authorities on the effects of their undertakings on historic properties. Although the Joint Air Toxics Assessment Project is discussed on pages 4-64 and 4-74 of the Draft and Final Environmental Impact Statements, respectively, Section 106 consultation on this report is not required. |
| 309 | **Cultural Resources** | The comment that eight traditional cultural properties would be adversely affected is incorrect. Adverse effects to the South Mountains Traditional Cultural Property and one site that is contributing to the South Mountains Traditional Cultural Property (AZ T:12:197) would occur with the construction of the E1 Alternative. No extant petroglyph sites would be adversely affected. The trail sites were determined eligible for listing in the National Register of Historic Places listing under Criterion D as archaeological sites; therefore, as noted on page 5-2 of the Draft Environmental Impact Statement, generally, cultural resources eligible for listing in the National Register of Historic Places under Criterion D are not eligible for protection under Section 4(f). Through consultation and coordination, the Gila River Indian Community Tribal Historic Preservation Office, the Arizona State Historic Preservation Office, and many other tribal authorities concurred with these recommendations (see Table 4-47 on page 4-145 of the Final Environmental Impact Statement for more details on tribal concurrences).<br>Since the beginning of the environmental impact statement process for the proposed freeway, 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, its Tribal Historic Preservation Officer and Cultural Resource Management Program, 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. The Gila River Indian Community's own Cultural Resource Management Program performed the cultural field investigations and developed recommendations for mitigation for project impacts. 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 freeway. In certain cases, listing these properties on the National |

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| 311 | **e. The DEIS lacks crucial aerial photography, charts, maps and diagrams illustrating the potential destruction of cultural properties and fails to address known impacts to religious practice.** |
| 312 | The DEIS fails to provide aerial photography, maps, charts or diagrams that properly informs the public of the Area of Potential Effects upon known and potential cultural sites and resources. Further, the DEIS fails to address any impacts to air, ground and water directly and indirectly related to the cultural resources impacted during the temporary state of construction of the Freeway. The DEIS fails to address documented concerns regarding religious practice including measures to ensure that religious practitioners gain and maintain uninterrupted access to sacred cultural properties and religious practice locations impacted by the Freeway project. In fact, the FHWA and ADOT have determined that the trails located within the project area do not qualify under the NRHP, however, the DEIS lacks any reference as to whether any one of the trails or all of the trails are routes used for religious practice purposes and therefore, should be afforded a higher value of significance under the criterion. Further, shortcomings in the initiation of the Section 106 process, lack of input from affected tribes, lack of good faith and reasonable efforts by the FHWA and ADOT all contribute to faulty application of the criterion against the properties found within the Area of Potential Effects. |
| 313 | In addition, the DEIS does not confirm that the Section 106 process is complete and that the FHWA and ADOT acquired concurrence by the Tribal Historic Preservation Officer or the State Historic Preservation Officer on its findings. The South Mountain Transportation Corridor Study, Citizens Advisory Team Draft Technical Support Summary, Cultural Resources (2008)[21] (the "SMT Corridor Study") confirms that "[t]he greatest number of prehistoric sites would be impacted by the E1 Alternative…"[22] In fact, the E1 Alternative is determined to impact at least 8 sites described as, "1 artifact scatter (limited activity site); 2 lithic quarries; 1 petroglyph site; 4 trail sites".[23] The SMT Corridor Study confirms that the Section 106 process is incomplete[24] and that mitigation measures including work plans, research designs, methods and excavation strategies, burial agreements with the Arizona State Museum and tribes are all outstanding.[25] Instead of completing the process as required and needed on a project of this magnitude, the FHWA and ADOT opted to propose and execute a seemingly unpopular Programmatic Agreement ("PA") |

[21] *See* South Mountain Transportation Corridor Study, Citizens Advisory Team Draft Technical Support Summary, Cultural Resources (2008) available at: http://www.azdot.gov/southmountainfreeway/PDF/082808_SMCAT_CulturalResources_Summary_Final.pdf (viewed July 19, 2013).
[22] *Id.* at p. 2.
[23] *Id.* at p. 3.
[24] *Id.* at p. 4.
[25] *Id.* at p. 5.



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| 309 (cont.) | | 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 and as noted in Table 4-47, which begins on page 4-145 of the Final Environmental Impact Statement, these tribes were included in Section 106 consultation. |
| 310 | **Cultural Resources** | The proposed action's environmental impact statement process has complied with the National Historic Preservation Act Section 106 process, which, for the proposed action, is ongoing and continuing. |
| 311 | **Cultural Resources** | The Study Area as shown in Figure 1-1 on page 1-3 of the Draft Environmental Impact Statement includes the area of potential effects. In addition, consultation letters sent to consulting parties included maps and complete reports for their reference. The location of cultural resources are not shown in the Draft Environmental Impact Statement because the publishing of location information would put the sites in danger of pilfering and/or vandalism. Adverse effects to the South Mountains Traditional Cultural Property and one site that is contributing to the South Mountains Traditional Cultural Property (AZ T:12:197) would occur with the construction of the E1 Alternative. No extant petroglyph sites would be adversely affected. The trail sites were determined eligible for listing in the National Register of Historic Places listing under Criterion D as archaeological sites. Through Section 106 consultation and coordination, the Gila River Indian Community Tribal Historic Preservation Office, the Arizona State Historic Preservation Office, and many other tribal authorities concurred with these recommendations (see Table 4-47 on page 4-145 of the Final Environmental Impact Statement for more details on tribal concurrences).<br>As stated above, Section 106 requires federal consultation with tribal authorities on the effects of their undertakings on historic properties. In cases where air, ground, or water attributes were considered important to their eligibility to the National Register of Historic Places, this information would have been addressed during the consultation process. If the Federal Highway Administration had no information suggesting the significance of air, ground, or water attributes, and none of the consulting parties responded to consultation by saying those attributes were important and requesting they be considered, the Federal Highway Administration would have no reason to consider them, and further Section 106 consultation on these attributes would not have been required. |
| 312 | **Cultural Resources** | The Study Area as shown in Figure 1-1 on page 1-3 of the Draft Environmental Impact Statement includes the area of potential effects. In addition, consultation letters sent to consulting parties included maps and complete reports for their reference. The location of cultural resources are not shown in the Draft Environmental Impact Statement because the publishing of location information would put the sites in danger of pilfering and/or vandalism.<br>The project would not preclude access to the South Mountains. Adverse effects on traditional cultural practices, including religious activities, would be mitigated through the development and implementation of the traditional cultural property mitigation program being developed for the proposed project through ongoing National Historic Preservation Act Section 106 consultations and by mitigation identified in Chapter 4 of the Draft Environmental Impact Statement that would avoid, reduce, minimize or otherwise mitigate air, ground, and water-related impacts. This applies equally to any impacts during construction of the proposed freeway, should an action alternative be the Selected Alternative.<br>The Draft Environmental Impact Statement describes a proposed action that, after consultation and coordination efforts, would accommodate and preserve (to the |

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| 313 | with certain parties and tribes to address "steps and procedures that would be undertaken to address any effects as they were to become known."[26] The decision to enter into a PA not only removes the project activities from the eyes of the public, but circumvents the statutory requirements and public policy governing the approval process of the project.<br><br>**f. The DEIS fails to confirm that the Tribal Historic Preservation Office has concurred with the FHWA and ADOT's conclusions on eligibility of all cultural sites against the National Registry's criterion.**<br><br>The DEIS does not address why the THPO and the GRIC have opted to refrain from concurring on the Section 106 findings. The DEIS should not proceed forward without, in the least, valid Section 106 compliance. The DEIS fails to suggest when concurrence might be reached, why concurrence has not yet been made, and/or any other actions associated with the same.<br><br>**g. The DEIS fails to address proposed mitigation measures to the irreversible harm the Freeway project will cause on known cultural resources.**<br><br>Without addressing the FHWA and ADOT's planned mitigation of adverse effects upon the known cultural resources, the public, tribes and the Gila River Indian Community remain uninformed and unable to substantively comment on the DEIS. In other words, interested persons are left to speculate on mitigation measures on a large-scale project affecting hundreds of cultural properties. The DEIS does not mention whether it has drafted a mitigation plan, the scope of such a plan, the parties consulted, the measures to be taken, citations to procedural and substantive laws that apply in any such instance, the availability of funding and liability protections, curation agreements, curation space, technical qualifications of on-the-ground archaeologists, curation specialists or assistants, implications and coordination with tribes of any potential implications to the National Graves Protection and Repatriation Act, 25 U.S.C. 3001 et seq.[27] The DEIS confirms that the critical procedural requirement of mitigation in the Section 106 process is lacking.[28]<br><br>[26] *Id.* at p. 7. The PA received little support from tribes on the record.<br>[27] The Native American Graves Protection and Protection Act ("NAGPRA") requires federal agencies and institutions that receive federal funding to return Native American "cultural items" to lineal descendants and culturally affiliated Indian tribes and Native Hawaiian organizations. Cultural items include human remains, funerary objects, sacred objects, and objects of cultural patrimony. NAGPRA also establishes procedures for the inadvertent discovery or planned excavation of Native American cultural items on federal or tribal lands. While these provisions do not apply to discoveries or excavations on private or state lands, the collection provisions of NAGPRA may apply to Native American cultural items if they come under the control of an institution that receives federal funding.<br>[28] Mitigation measures lack proper consultation with tribes and consulting parties and are merely speculative as of the date of this Complaint. *See* ADOT, South Mountain Study Team, *Summary*, Table S-4, p. S-27 available<br><br>10 |

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| 312 (cont.) | | 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 Draft 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 Gila River Indian Community.<br><br>The Federal Highway Administration recommended the trails within the project area as eligible for listing in the National Register of Historic Places under Criterion D as archaeological sites. Based on review of the traditional cultural property technical summary, the Bureau of Indian Affairs, City of Phoenix, State Historic Preservation Office, Cocopah Tribe, Colorado River Indian Tribes, Fort McDowell Yavapai Nation, Gila River Indian Community, Hopi Tribe, Navajo Nation, San Carlos Apache Tribe, Tonto Apache Tribe, and White Mountain Apache Tribe, the Gila River Indian Community Tribal Historic Preservation Officer and Arizona State Historic Preservation Office concurred with these recommendations. |
| 313 | **Cultural Resources** | The cultural and religious places of importance, like the South Mountains, are acknowledged in the Draft Environmental Impact Statement in several locations, notably pages 4-132 and 5-26.<br><br>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.<br><br>Adverse effects to the South Mountains Traditional Cultural Property and one site that is contributing to the South Mountains Traditional Cultural Property (AZ T:12:197) would occur with the construction of the E1 Alternative. No extant petroglyph sites would be adversely affected. The trail sites were determined eligible for listing in the National Register of Historic Places listing under Criterion D as archaeological sites; therefore, as noted on page 5-2 of the Draft Environmental Impact Statement, generally, cultural resources eligible for listing in the National Register of Historic Places under Criterion D are not eligible for protection under Section 4(f). Through consultation and coordination, the Gila River Indian Community Tribal Historic Preservation Office, the Arizona State Historic Preservation Office, and many other tribal authorities concurred with these recommendations (see Table 4-47 on page 4-145 for more details on tribal concurrences). |

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| 314 | with certain parties and tribes to address "steps and procedures that would be undertaken to address any effects as they were to become known."[26] The decision to enter into a PA not only removes the project activities from the eyes of the public, but circumvents the statutory requirements and public policy governing the approval process of the project.<br><br>f. **The DEIS fails to confirm that the Tribal Historic Preservation Office has concurred with the FHWA and ADOT's conclusions on eligibility of all cultural sites against the National Registry's criterion.**<br><br>The DEIS does not address why the THPO and the GRIC have opted to refrain from concurring on the Section 106 findings. The DEIS should not proceed forward without, in the least, valid Section 106 compliance. The DEIS fails to suggest when concurrence might be reached, why concurrence has not yet been made, and/or any other actions associated with the same.<br><br>g. **The DEIS fails to address proposed mitigation measures to the irreversible harm the Freeway project will cause on known cultural resources.**<br><br>Without addressing the FHWA and ADOT's planned mitigation of adverse effects upon the known cultural resources, the public, tribes and the Gila River Indian Community remain uninformed and unable to substantively comment on the DEIS. In other words, interested persons are left to speculate on mitigation measures on a large-scale project affecting hundreds of cultural properties. The DEIS does not mention whether it has drafted a mitigation plan, the scope of such a plan, the parties consulted, the measures to be taken, citations to procedural and substantive laws that apply in any such instance, the availability of funding and liability protections, curation agreements, curation space, technical qualifications of on-the-ground archaeologists, curation specialists or assistants, implications and coordination with tribes of any potential implications to the National Graves Protection and Repatriation Act, 25 U.S.C. 3001 et seq.[27] The DEIS confirms that the critical procedural requirement of mitigation in the Section 106 process is lacking.[28] |

[26] *Id.* at p. 7. The PA received little support from tribes on the record.
[27] The Native American Graves Protection and Protection Act ("NAGPRA") requires federal agencies and institutions that receive federal funding to return Native American "cultural items" to lineal descendants and culturally affiliated Indian tribes and Native Hawaiian organizations. Cultural items include human remains, funerary objects, sacred objects, and objects of cultural patrimony. NAGPRA also establishes procedures for the inadvertent discovery or planned excavation of Native American cultural items on federal or tribal lands. While these provisions do not apply to discoveries or excavations on private or state lands, the collection provisions of NAGPRA may apply to Native American cultural items if they come under the control of an institution that receives federal funding.
[28] Mitigation measures lack proper consultation with tribes and consulting parties and are merely speculative as of the date of this Complaint. *See* ADOT, South Mountain Study Team, *Summary*, Table S-4, p. S-27 available



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| 313 (cont.) | | As noted on page 4-159 of the Final Environmental Impact Statement, a programmatic agreement is a document that spells out the terms of a formal, legally binding agreement between lead agencies and other interested parties for the proper treatment and management of affected cultural resources. The programmatic agreement establishes a process for consultation, review, and compliance with federal and State preservation laws as the effects of the project on historic properties become known. Although the Advisory Council on Historic Preservation declined to participate in the programmatic agreement, the Council concerned with the development of the agreement (see Table 4-47, which begins on page 4-145 of the Final Environmental Impact Statement). |
| 314 | **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. 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. |

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with certain parties and tribes to address "steps and procedures that would be undertaken to address any effects as they were to become known."[26] The decision to enter into a PA not only removes the project activities from the eyes of the public, but circumvents the statutory requirements and public policy governing the approval process of the project.

f. **The DEIS fails to confirm that the Tribal Historic Preservation Office has concurred with the FHWA and ADOT's conclusions on eligibility of all cultural sites against the National Registry's criterion.**

The DEIS does not address why the THPO and the GRIC have opted to refrain from concurring on the Section 106 findings. The DEIS should not proceed forward without, in the least, valid Section 106 compliance. The DEIS fails to suggest when concurrence might be reached, why concurrence has not yet been made, and/or any other actions associated with the same.

315 g. **The DEIS fails to address proposed mitigation measures to the irreversible harm the Freeway project will cause on known cultural resources.**

314 Without addressing the FHWA and ADOT's planned mitigation of adverse effects upon the known cultural resources, the public, tribes and the Gila River Indian Community remain uninformed and unable to substantively comment on the DEIS. In other words, interested persons are left to speculate on mitigation measures on a large-scale project affecting hundreds of cultural properties. The DEIS does not mention whether it has drafted a mitigation plan, the scope of such a plan, the parties consulted, the measures to be taken, citations to procedural and substantive laws that apply in any such instance, the availability of funding and liability protections, curation agreements, curation space, technical qualifications of on-the-ground archaeologists, curation specialists or assistants, implications and coordination with tribes of any potential implications to the National Graves Protection and Repatriation Act, 25 U.S.C. 3001 et seq.[27] The DEIS confirms that the critical procedural requirement of mitigation in the Section 106 process is lacking.[28]

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[26] *Id.* at p. 7. The PA received little support from tribes on the record.
[27] The Native American Graves Protection and Protection Act ("NAGPRA") requires federal agencies and institutions that receive federal funding to return Native American "cultural items" to lineal descendants and culturally affiliated Indian tribes and Native Hawaiian organizations. Cultural items include human remains, funerary objects, sacred objects, and objects of cultural patrimony. NAGPRA also establishes procedures for the inadvertent discovery or planned excavation of Native American cultural items on federal or tribal lands. While these provisions do not apply to discoveries or excavations on private or state lands, the collection provisions of NAGPRA may apply to Native American cultural items if they come under the control of an institution that receives federal funding.
[28] Mitigation measures lack proper consultation with tribes and consulting parties and are merely speculative as of the date of this Complaint. *See* ADOT, South Mountain Study Team, *Summary*, Table S-4, p. S-27 available



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| 315 | **Cultural Resources** | 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.<br>Mitigation for effects to cultural resources is discussed on page 4-146 of the Draft Environmental Impact Statement and in Chapter 5 as *Measures to Minimize Harm* which are presented at the end of each resource protected under Section 4(f) . These include maintaining access to important sites, the commitment to additional consultation during design, a traditional cultural property evaluation, and others. |
| 316 | **Cultural Resources** | Arizona Department of Transportation and Federal Highway Administration solicited input from the Gila River Indian Community and other Native American tribes and tribal members and considered fully the substantive input and comments that were received. Refer to Chapter 2 in its entirety and text beginning on page 4-128 of the Draft Environmental Impact Statement. |
| 317 | **Cultural Resources** | The Transportation Technical Team was discussed on page 2-3 of the Draft Environmental Impact Statement. |

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| 316 | **II. The FHWA and ADOT failed to consult the Gila River Indian Community.** |
| 317 | As a result of the initiation of the project, the GRIC organized itself to effectively plan and negotiate proposed road modifications within the Gila River Indian Reservation. In particular, the GRIC established a Transportation Technical Team (the "TTT"). *See* Gila River Tribal Resolution GR -76-07 (July 5, 2007). |
| 318 | The FHWA and ADOT met with TTT. The TTT held meetings in the Gila River Indian Community's seven (7) districts. *See* Table 2-1. As discussed above, FHWA and ADOT do not have authority to delegate its consultation and public/community outreach to tribal government or any of tribal government's sub-entities. In other words, the FHWA and ADOT failed to make sufficient and direct efforts to engage Community members. Instead, the FHWA and ADOT substituted its duty for community outreach narrowly to tribal government and/or its sub-entities. The result is that Community members are uniformed, uninvolved and insignificant in the participation of the Freeway project. This outcome is contrary to the public policy as set forth in the NEPA. |
| 319 | For example, FHWA held only one public hearing on May 21, 2013. On April 30, 2013, FHWA and ADOT explicitly offered transportation assistance through the issuance of the City of Phoenix bus passes to GRIC members to attend the only public hearing on May 21. However, FHWA and ADOT never distributed bus passes to GRIC members that wished to attend the May 21 Hearing. *See Statement by Lori Riddle (July 22, 2013).* Therefore, the efforts to engage the Community were disingenuous. |
| | **III. The DEIS that proposes the selection of the E1 Alternative, the alternative that results in irreversible damage to traditional cultural properties (South Mountain), erroneously concludes that Section 4(f) of the United States Department of Transportation Act of 1996 does not apply and is violative of Environmental Justice.** |
| | The Department of Transportation Act (DOT Act) of 1966 includes a special provision, Section 4(f), which stipulates that the FHWA and other DOT agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless the following conditions apply: (1) there is no feasible and prudent alternative to the use of land, and (2) the action includes all possible planning to minimize harm to the property resulting from use. |
| | Examples of Section 4(f) protected resources are public school playgrounds, public parks, recreational land, wildlife refuges, traditional cultural properties, and historic sites. There are two types of transportation impacts that Section 4(f) looks at direct |

at http://www.azdot.gov/Highways/Valley_Freeways/Loop_202/South_Mountain/PDF/south-mountain-loop-202-docs/EIS/summary/Summary.pdf (viewed July 18, 2013).

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| 318 | **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 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.<br>Public involvement with the Gila River Indian Community was conducted as requested by the tribal government. Prior to October 2005, early efforts to involve the Gila River Indian Community included attending tribal meetings and monthly meetings with Gila River Indian Community Departments (see discussion beginning on page 2-8 of the Draft and Final Environmental Impact Statements). On October 14, 2005, the Gila River Indian Community requested that all project-related communications take place at a government-to-government level (see letter on page A152 of Appendix 1-1). This request was honored by the Arizona Department of Transportation and Federal Highway Administration. All public involvement efforts were implemented by the Gila River Indian Community's public involvement officer.<br>As stated on page 2-8 of the Draft Environmental Impact Statement, the meetings in 2010 between the Gila River Indian Community's Transportation Technical Team, Arizona Department of Transportation, and the Federal Highway Administration were held in response to a request received from the Governor of the Gila River Indian Community . The information provided to the Transportation Technical Team was used by the Team and the Public Information Office in the Gila River Indian Community's outreach effort prior to the February 2012 coordinated referendum. The referendum and the outreach effort were tribal actions and, other than providing requested information to the Gila River Indian Community, the Arizona Department of Transportation and Federal Highway Administration did not participate in these actions. |
| 319 | **Tribal Involvement** | The Arizona Department of Transportation provided vouchers for public hearing parking and for public transit to the hearing. For the first time in the State's history, a shuttle bus to the hearing was provided from six locations in the Phoenix area, including two on the Gila River Indian Community (Komatke Boys & Girls Club and the Governance Center in Sacaton). All advertisements for the hearing provided telephone numbers and electronic contact information regarding information on the shuttle schedules and pick-up locations. |

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| | II. **The FHWA and ADOT failed to consult the Gila River Indian Community.**<br><br>As a result of the initiation of the project, the GRIC organized itself to effectively plan and negotiate proposed road modifications within the Gila River Indian Reservation. In particular, the GRIC established a Transportation Technical Team (the "TTT"). *See* Gila River Tribal Resolution GR -76-07 (July 5, 2007).<br><br>The FHWA and ADOT met with TTT. The TTT held meetings in the Gila River Indian Community's seven (7) districts. *See* Table 2-1. As discussed above, FHWA and ADOT do not have authority to delegate its consultation and public/community outreach to tribal government or any of tribal government's sub-entities. In other words, the FHWA and ADOT failed to make sufficient and direct efforts to engage Community members. Instead, the FHWA and ADOT substituted its duty for community outreach narrowly to tribal government and/or its sub-entities. The result is that Community members are uniformed, uninvolved and insignificant in the participation of the Freeway project. This outcome is contrary to the public policy as set forth in the NEPA.<br><br>For example, FHWA held only one public hearing on May 21, 2013. On April 30, 2013, FHWA and ADOT explicitly offered transportation assistance through the issuance of the City of Phoenix bus passes to GRIC members to attend the only public hearing on May 21. However, FHWA and ADOT never distributed bus passes to GRIC members that wished to attend the May 21 Hearing. *See Statement by Lori Riddle (July 22, 2013).* Therefore, the efforts to engage the Community were disingenuous. |
| 320<br>321 | III. **The DEIS that proposes the selection of the E1 Alternative, the alternative that results in irreversible damage to traditional cultural properties (South Mountain), erroneously concludes that Section 4(f) of the United States Department of Transportation Act of 1996 does not apply and is violative of Environmental Justice.**<br><br>The Department of Transportation Act (DOT Act) of 1966 includes a special provision, Section 4(f), which stipulates that the FHWA and other DOT agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless the following conditions apply: (1) there is no feasible and prudent alternative to the use of land, and (2) the action includes all possible planning to minimize harm to the property resulting from use.<br><br>Examples of Section 4(f) protected resources are public school playgrounds, public parks, recreational land, wildlife refuges, traditional cultural properties, and historic sites. There are two types of transportation impacts that Section 4(f) looks at direct |

at http://www.azdot.gov/Highways/Valley_Freeways/Loop_202/South_Mountain/PDF/south-mountain-loop-202-docs/FEIS/summary/Summary.pdf (viewed July 18, 2013).

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| 320 | **Section 4(f) and Section 6(f)** | The cultural and religious places of importance, like the South Mountains, are acknowledged in the Draft Environmental Impact Statement in several locations, notably pages 4-132 and 5-26.<br><br>In accordance with the National Environmental Policy Act, a range of reasonable action alternatives to carry forward for further analysis was determined through application of multidisciplinary criteria in a logical, step-wise progression. Alternatives were not disposed of or dismissed without a thorough evaluation using the multidisciplinary criteria outlined in the alternatives development and screening process presented in Chapter 3 of the Draft Environmental Impact Statement. The preferred alternative was the outcome to this process.<br><br>An alternative on the Gila River Indian Community that could have avoided the South Mountains was considered but eliminated from study after the Gila River Indian Community rejected the alternative by referendum.<br><br>The Draft Environmental Impact Statement concludes that Section 4(f) does apply to the South Mountains Traditional Cultural Property and Chapter 5 of the Draft Environmental Impact Statement presents a robust and fully disclosed Section 4(f) evaluation (see discussion in the Draft Environmental Impact Statement, starting on page 5-26). The outcome of this process was the determination that there was no prudent and feasible alternative to the E1 Alternative.<br><br>A thorough feasible and prudent avoidance analysis of the South Mountains was conducted as presented in Chapter 5 of the Draft and Final Environmental Impact Statements and concluded avoidance to the direct use of the resource was not feasible and prudent. In support of this response and given the concerns about the South Mountains, consider the following comment from the U.S. Department of the Interior on the Draft Environmental Impact Statement: "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." The complete letter can be found in Appendix 7, Volume III, on page B4 of the Final Environmental Impact Statement. |
| 321 | **Environmental Justice and Title VI** | 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 ongoing, open consultation 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 and that could be affected by construction of the proposed freeway. In |

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II. **The FHWA and ADOT failed to consult the Gila River Indian Community.**

As a result of the initiation of the project, the GRIC organized itself to effectively plan and negotiate proposed road modifications within the Gila River Indian Reservation. In particular, the GRIC established a Transportation Technical Team (the "TTT"). *See* Gila River Tribal Resolution GR -76-07 (July 5, 2007).

The FHWA and ADOT met with TTT. The TTT held meetings in the Gila River Indian Community's seven (7) districts. *See* Table 2-1. As discussed above, FHWA and ADOT do not have authority to delegate its consultation and public/community outreach to tribal government or any of tribal government's sub-entities. In other words, the FHWA and ADOT failed to make sufficient and direct efforts to engage Community members. Instead, the FHWA and ADOT substituted its duty for community outreach narrowly to tribal government and/or its sub-entities. The result is that Community members are uniformed, uninvolved and insignificant in the participation of the Freeway project. This outcome is contrary to the public policy as set forth in the NEPA.

For example, FHWA held only one public hearing on May 21, 2013. On April 30, 2013, FHWA and ADOT explicitly offered transportation assistance through the issuance of the City of Phoenix bus passes to GRIC members to attend the only public hearing on May 21. However, FHWA and ADOT never distributed bus passes to GRIC members that wished to attend the May 21 Hearing. *See Statement by Lori Riddle (July 22, 2013).* Therefore, the efforts to engage the Community were disingenuous.

III. **The DEIS that proposes the selection of the E1 Alternative, the alternative that results in irreversible damage to traditional cultural properties (South Mountain), erroneously concludes that Section 4(f) of the United States Department of Transportation Act of 1996 does not apply and is violative of Environmental Justice.**

322 The Department of Transportation Act (DOT Act) of 1966 includes a special provision, Section 4(f), which stipulates that the FHWA and other DOT agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless the following conditions apply: (1) there is no feasible and prudent alternative to the use of land, and (2) the action includes all possible planning to minimize harm to the property resulting from use.

323 Examples of Section 4(f) protected resources are public school playgrounds, public parks, recreational land, wildlife refuges, traditional cultural properties, and historic sites. There are two types of transportation impacts that Section 4(f) looks at direct

at http://www.azdot.gov/Highways/Valley_Freeways/Loop_202/South_Mountain/PDF/south-mountain-loop-202-docs/EIS/summary/Summary.pdf (viewed July 18, 2013).

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| 321 (cont.) | | 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.<br>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, *Cultural Resources*, beginning on page 4-140 of the Final Environmental Impact Statement and pages 5-26 through 5-28.<br>The section entitled *Title VI and Environmental Justice*, beginning on page 4-29 in the Draft Environmental Impact Statement, presents acceptable methods, data, and assumptions to assess the potential for disproportionately high and adverse effects from the proposed action on environmental justice populations and disparate impacts to populations protected under Title VI. Based upon the content of the section, no such effects would result from the action alternatives.<br>In light of comments received on the Draft Environmental Impact Statement, the above-referenced conclusions were confirmed in the preparation of the Final Environmental Impact Statement. To provide further clarity, the discussions of environmental justice and Title VI were separated and additional text explaining the relationship of environmental justice and Title VI to various environmental elements was added throughout Chapter 4, *Affected Environment, Environmental Consequences, and Mitigation*, as exemplified by the inserted text on page 4-29 of the Final Environmental Impact Statement. |
| 322 | **Section 4(f) and Section 6(f)** | Chapter 5 of the Draft and Final Environmental Impact Statements are dedicated to the discussion of Section 4(f) of the Department of Transportation Act of 1966. |
| 323 | **Section 4(f) and Section 6(f)** | When there is a direct use (take) of a Section 4(f) property, analysis to determine whether proximity impacts would result in a constructive use is not applicable (23 Code of Federal Regulations § 774.15) (see Draft Environmental Impact Statement page 5-27). Constructive use would not incorporate land from the Section 4(f) resource, but has proximity impacts so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Approximately 32 acres of the over 16,000-acre Phoenix South Mountain Park/Preserve and the South Mountains Traditional Cultural Property would be converted to a transportation corridor. The park would still function as a park, offering recreation, interaction with the Sonoran Desert, etc. Although access to the traditional cultural property would be different, Native Americans would still have access to the traditional cultural property and would still be able engage in traditional activities associated with the mountains. The impact on the traditional cultural property would not jeopardize its eligibility for listing in the National Register of Historic Places. Through the consultation process, the Gila River Indian Community Tribal Historic Preservation Officer has been involved in developing measures to minimize harm to the traditional cultural property (see page 5-27 of the Draft Environmental Impact Statement). |

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| | impacts: When a 4(f) resource is converted to use for transportation, such as the thirty-one (31) acres of South Mountain for the proposed freeway, as well as a TCP that would be destroyed, if built, indirect impacts including proximity impacts that significantly impair the use of a 4(f) resource are relevant. For example, indirect impacts including proximity impacts could include increased noise levels, changes to views, lighting pollution, or obstructed access to the 4(f) resource (cultural and religious practice). Indirect impacts can intrinsically lead to direct impacts, if the indirect impacts result in the 4(f) resource no longer functioning as it did prior to the Freeway project. This case certainly applies in the present case. |
| 324 | The DEIS acknowledges that the South Mountain is sacred to the GRIC and other tribes, is designated as a TCP[29], and is consequently eligible under the NRHP. The DEIS indicates that ten locations have been identified by GRIC as places of cultural importance: the South Mountains, two prehistoric village sites, an active shrine site, two prehistoric petroglyph sites, and four prehistoric trail sites, which are eligible as TCPs. The FHWA and ADOT in consultation with the GRIC confirmed the eligibility of two properties. Five TCPs have been identified within the Area of Potential Effects. The DEIS specifically states that the South Mountains were determined eligible for NRHP listing as a TCP under Criteria A and B.[30] |
| 325 | Despite the above findings and conclusions, however, the DEIS suggests that "the E1 Alternative was designed in such a way as to avoid a site that is a contributing element to the South Mountains TCP, resulting in no direct use of this TCP element. A right of way fence would limit access to the site by freeway users, but Community members would continue to gain access to the site as they currently do."[31] |
| 326 | Finally, the DEIS outright finds that, "…even with mitigation, implementation of the proposed action would alter the direct physical connection Community members have between their homeland and the South Mountains and would restrict the ability to visit or use these locations in a traditional cultural manner." What is most perplexing is that the DEIS makes an unsubstantiated claim that "…alternatives to avoid use of the South Mountains TCP were evaluated and determined to be not prudent and feasible." In other words, the FHWA and ADOT found the E1 Alternative to be the most prudent and feasible option for the Freeway project. |

[29] *See* ADOT, South Mountain Study Team, *Summary,* p. 35 available at http://www.azdot.gov/Highways/Valley_Freeways/Loop_202/South_Mountain/PDF/south-mountain-loop-202-docs/EIS/summary/Summary.pdf (viewed July 19, 2013).
[30] *See* ADOT, South Mountain Study Team, *Summary* , p. S-27 available at http://www.azdot.gov/Highways/Valley_Freeways/Loop_202/South_Mountain/PDF/south-mountain-loop-202-docs/EIS/summary/Summary.pdf.
[31] *Id.*



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| 324 | **Cultural Resources** | The cultural and religious places of importance, like the South Mountains, are acknowledged in the Draft Environmental Impact statement in several locations, notably pages 4-130 and 5-26. Not all of the ten resources identified by the Cultural Resource Management Program as culturally important qualified as traditional cultural properties. |
| 325 | **Cultural Resources** | Comment noted. |
| 326 | **Section 4(f) and Section 6(f)** | In accordance with the National Environmental Policy Act, a range of reasonable action alternatives to carry forward for further analysis was determined through application of multidisciplinary criteria in a logical, step-wise progression. Alternatives were not disposed of or dismissed without a thorough evaluation using the multidisciplinary criteria outlined in the alternatives development and screening process presented in Chapter 3 of the Draft Environmental Impact Statement. The Preferred Alternative was the outcome to this process.<br>The Draft Environmental Impact Statement concludes that Section 4(f) applies to the South Mountains Traditional Cultural Property and Chapter 5 of the Draft Environmental Impact Statement presents a robust and fully disclosed Section 4(f) evaluation (see discussion in the Draft Environmental Impact Statement, starting on page 5-26). The outcome of this process was the determination that there was no prudent and feasible alternative to the E1 Alternative. A thorough feasible and prudent avoidance analysis of the South Mountains was conducted as presented in Chapter 5 of the Draft and Final Environmental Impact Statements and concluded avoidance to the direct use of the resource was not feasible and prudent. In support of this response and given the concerns about the South Mountains, consider the following comment from the U.S. Department of the Interior on the Draft Environmental Impact Statement: "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." The complete letter can be found in Appendix 7, Volume III, on page B4 of the Final Environmental Impact Statement. |

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| 327 | In addition, the DEIS fails to address the cultural and religious significance of microphylla bursera (elephant tree) also known as "uhs bakam" to Native Americans. The DEIS consequently fails to assess the value of this culturally significant plant as impacted by the proposed project. More specifically, the project proposes to destroy the Bursera Trail and the uhs bakam, used for medicinal and ceremonial purposes, is known to be associated with this particular trail. Elephant tree is a "protected" plant and its presence is rare in the United States. Muhadag (South Mountain) is known to being the plant's northernmost point of location. The more popular location of this plant is in Sonora, Mexico. Local Native Americans are well aware that the only access to harvest Elephant Tree is at Muhadag other than a few remote locations near Yuma, Arizona. The Yuma location requires access via horseback and/or all-terrain vehicle. Reference to uhs bakam must also include technical data support, avoidance and mitigation plans in order to preserve this rare and highly coveted medicine and religious resource. Destroying this particular resource and/or restricting access to it has broad yet serious implications to Native Americans and religious practitioners that rely on this sacred resource. |
| 328 | Conclusively, the DEIS has failed to identify at least three Section 4(f) resources. In addition, the DEIS incorrectly analyzes the impact to any Section 4(f) resources in the west end of SMPP. While there will not be a direct use of these trails, there will clearly be a *constructive* use of these trails. It is tragic that the solitude, peacefulness and beauty experienced on these trails (old and new) will be so dramatically diminished by the proposed action. The severe impacts should be included in a revised DEIS. |
| 329 | The Section 4(f) Evaluation is incomplete and filled with misstatements, therefore the analysis is deficient. Figure 5-6 needs to be amended to include the trails and developed measures to minimize harm. As a whole, this report needs to be amended and alternatives reevaluated to avoid impact and/or evaluate measures to minimize harm. |
| 330 | As an overall final editorial, it seems tragic that the process went out of its way to realign the proposed project to preserve other Section 4(f) resources (Hudson Farm, Barnes Dairy Farm, and Hackin Farmstead, all on private property) when it is most certain they are only being preserved to be eventually demolished by future development, yet other Section 4(f) resources such as the trails in SMPP, which will be used by thousands of people for many years to come, are discounted, devalued and dismissed as an important protected resource. |
| 331 | Many of the statements in the Section 4(f) Evaluation are clearly pre-decisional and the evaluation was not done by or with a professional who understands the SMPP, its trail system or the City of Phoenix General Plan. This leads to a misleading analysis. The public uses the DEIS as a tool for information, yet the information is not only incomplete, it is also wrong. The Section 4(f) Evaluation needs to be revised. |

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| 327 | **Cultural Resources** | Adverse impacts to culturally important natural resources (plants, animals, landscapes) would be addressed through the traditional cultural property mitigation program (currently in its draft form as jointly drafted by the Arizona Department of Transportation and the Gila River Indian Community). (See Draft Environmental Impact Statement pages 4-131 and 5-27 for more discussion.) The Bursera trail is more than ¼ mile from the proposed freeway and is analyzed in the Final Environmental Impact Statement on page 5-9. The trail is within ¼ mile of the planned Chandler extension and residential development; however, these trails do not have noise-sensitive activities or viewshed characteristics that contribute to their importance as Section 4(f) recreational resources. |
| 328 | **Section 4(f) and Section 6(f)** | The newest South Mountains trails, the Bursera and the Pyramid, are more than ¼ mile from the proposed freeway and are analyzed in the Final Environmental Impact Statement on page 5-9. The trails are within ¼ mile of the planned Chandler extension and residential development; however, these trails do not have noise-sensitive activities or viewshed characteristics that contribute to their importance as Section 4(f) recreational resources.<br>Discovery of new information not presented in a Draft Environmental Impact Statement as it is published is not failure. Review by agencies and the public of a Draft Environmental Impact Statement equates to a review of a draft report to aid the agencies in making the document more objective and defensible. In this manner, the realization of new information, if recognized as such by the federal lead agency, permits the Arizona Department of Transportation and its representatives to defensibly augment the document's content. |
| 329 | **Section 4(f) and Section 6(f)** | Trails maps have been updated, and new trails are analyzed in the Final Environmental Impact Statement because they are within ¼ mile of the Chandler Extension (not the proposed freeway) (see page 5-9). Because none of the action alternatives or options would result in direct or constructive use of the trails, no measures to minimize harm are warranted.<br>Discovery of new information not presented in a Draft Environmental Impact Statement as it is published is not failure. Review by agencies and the public of a Draft Environmental Impact Statement equates to a review of a draft report to aid the agencies in making the document more objective and defensible. In this manner, the realization of new information, if recognized as such by the federal lead agency, permits the Arizona Department of Transportation and its representatives to defensibly augment the document's content. |
| 330 | **Section 4(f) and Section 6(f)** | The process upon which Section 4(f) resources were identified and evaluated for feasible and prudent avoidance possibilities followed the rigorous procedural requirements as set forth in Federal Highway Administration Technical Advisory T 6640.8A Guidance for Preparing and Processing Environmental and Section 4(f) Documents and related guidance. The comment suggests trails in the South Mountain Park/Preserve would be subject to direct or constructive use; however, as shown in Chapter 5 of the Draft and Final Environmental Impact Statements, such use would be avoided by the proposed freeway. |

(Response 331 begins on next page)

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| 332 | The disqualification of trails in South Mountain based on the above assessment is inaccurate, far-reaching and just plain wrong. This shows a true lack of knowledge about the SMPP, the trails, Section 4(f) resources and a defensible analysis. Finally, the assessment of the trails in relation to Native American religious practice is lacking and necessary to weigh the Section 4(f) applicability in the present matter. Thus, the trails remain subject to Section 4(f) review and protection. |
| 333 | **IV. The DEIS fails to comply with the Archaeological Resources Protection Act of 1979, 16 U.S.C. 470aa-mm.**<br><br>The Archaeological Resource Protection Act (the "ARPA") was enacted "...to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals." 16 U.S.C. 470, Sec. 2(b).<br><br>In the present case, the land affected by the Freeway project includes private, public, tribal and National Park land. ARPA governs federal projects that impact public, tribal and National Park land.[32]<br><br>The DEIS and FHWA/ADOT have failed to demonstrate compliance with the ARPA regarding permits to excavate archaeological resources on such lands, terms and conditions of the permits, compliance with the requisite qualifications of person/s to carry out the permitted activity, notification to tribes, curatorial measures and compliance, custodial arrangements for the archaeological collection, liabilities for the care and maintenance of the collection, compliance with tribal law governing archaeological excavations,[33] compliance with the Antiquities Act of 1906, 16 U.S.C. 431-433, consent of archaeological activities with Indian tribes,[34] among other provisions.<br><br>The FHWA and ADOT should become compliant with the ARPA as the Freeway project, per the DEIS, is planned to adversely impact numerous archaeological sites. |

[32] 16 U.S.C. 470bb, Section 3 (3)(a-b) & (4).
[33] Note that the GRIC has passed resolutions and perhaps other laws that bear the public policy against desecration of the South Mountain. Archaeological excavation would certainly desecrate the South Mountain. The FHWA and ADOT's lack of compliance with ARPA is compounded by the failure to address ARPA's requirement to observe tribal law for the same.
[34] *See* 16 U.S.C. 470bb, Section 5 which states, "[a]ny exchange or ultimate disposition under such regulation of archaeological resources excavated or removed from Indian lands shall be subject to the consent of the Indian or Indian tribe which owns or has jurisdiction over such lands. Following promulgation of regulations under this section, notwithstanding any other provision of law, such regulations shall govern the disposition of archaeological resources removed from public lands and Indian lands pursuant to this Act."



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| 331 | **Section 4(f) and Section 6(f)** | The Section 4(f) evaluation in its entirety represents an exhaustive, comprehensive, objective, and meaningful effort in accordance with requirements of the law and is in no way misleading. Evaluation of each resource included active engagement of resource owners to clarify resource importance and use (extensive interaction with owner/operators of Section 4(f) resources is well documented in the Appendices of the Draft and Final Environmental Impact Statement). The U.S. Department of the Interior [the agency with direct oversight of Section 4(f)] review of the Draft Environmental Impact Statement noted: "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" The complete letter can be found in Appendix 7, Volume III, on page B4 of the Final Environmental Impact Statement. The Section 4(f) evaluation was thorough and complete. |
| 332 | **Section 4(f) and Section 6(f)** | The Federal Highway Administration recommended the Native American trails within the project area as eligible for listing in the National Register of Historic Places under Criterion D as archaeological sites. Based on review of the traditional cultural property technical summary, the Bureau of Indian Affairs, City of Phoenix, State Historic Preservation Office, Cocopah Tribe, Colorado River Indian Tribes, Fort McDowell Yavapai Nation, Gila River Indian Community, Hopi Tribe, Navajo Nation, San Carlos Apache Tribe, Tonto Apache Tribe, and White Mountain Apache Tribe, the Gila River Indian Community Tribal Historic Preservation Officer and Arizona State Historic Preservation Office concurred with these recommendations. Trails within Phoenix South Mountain Park/Preserve were not disqualified from Section 4(f) evaluation; they are solely recreational. The City of Phoenix-owned trails within Phoenix South Mountain Park/Preserve were considered collectively as part of the City-owned park/preserve because the analysis indicated that there would be no direct or constructive use of the trails. |
| 333 | **Cultural Resources** | The Draft Environmental Impact Statement complies with the Archaeological Resources Protection Act of 1979, 16 United States Code 470aa-mm. Implementing regulations found at 43 Code of Federal Regulations Section 7.1(a) provide regulations to implement provisions of the Archaeological Resources Protection Act by establishing the uniform definitions, standards, and procedures to be followed by all Federal land managers in providing protection for archaeological resources, located on public lands and Indian lands of the United States; therefore, the Archaeological Resources Protection Act applies only to projects on federal or tribal land. The proposed freeway would not be constructed on tribal land and the involvement of federal land would be limited to a parcel owned by the Bureau of Land Management, which is discussed on page 4-14 of the Final Environmental Impact Statement.<br><br>As discussed on page 4-159 of the Final Environmental Impact Statement, a programmatic agreement was developed for the project to establish a process for consultation, review, and compliance with federal and state preservation laws as the effects of the project on historic properties become known. The programmatic agreement states that any data recovery on federal lands necessitated by the project must be permitted under the Archaeological Resources Protection Act in accordance with the federal land-holding agency and that in the event any data recovery for the project should take place on tribal lands, all applicable permits would be obtained. Because the project is proposed, a programmatic agreement is in place to address data recovery on federal and tribal lands, and no excavations have yet occurred. |

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| 334 | V. **The DEIS results in a clear violation of the Religious Freedom Restoration Act of 1993, 42 USC § 2000bb, (the "RFRA") and the Religious Land Use and Institutionalized Persons Act, 42 U.S.C. § 2000cc et seq. (the "RLUIPA").**<br><br>In general under the RFRA, the Government shall not substantially burden a person's exercise of religion even if the burden results from a rule of general applicability, except as provided in subsection (b) of this section. The Government may substantially burden a person's exercise of religion only if it demonstrates that application of the burden to the person— **(1)** is in furtherance of a compelling governmental interest; and **(2)** is the least restrictive means of furthering that compelling governmental interest.<br><br>The RLUIPA corrects the shortcomings of RFRA by prohibiting the imposition of burdens on the ability of prisoners to worship as they please and gives churches and other religious institutions a way to avoid burdensome zoning law restrictions on their property use.<br><br>Both RFRA and RLUIPA apply in the present case. The FHWA and ADOT, despite noting substantial findings and a lengthy record of the impact of the Freeway project upon the cultural, traditional and religious practice of Native Americans, the FHWA has not argued nor demonstrated a compelling governmental interest that is the least restrictive means to further such a compelling government interest. Instead, FHWA and ADOT suggest that they originated 30 or more design alternatives yet made unsubstantiated claims that 29 of the alternatives were not prudent or feasible. FHWA and ADOT through its DEIS proposes the EI Alternative that is (a) a substantial burden to the exercise of religion upon the Native Americans and tribes that have attached a religious connection with the proposed project's footprint and cultural resources, (b) that FHWA and ADOT intends, through its DEIS to further what it believes is a compelling government interest, and (c) is doing so by electing the most restrictive means upon religious freedom. Therefore, the E1 Alternative for the Freeway project violates RFRA and the project as proposed by the DEIS should not proceed. |
| 335 | VI. **The United States, through FHWA and ADOT, failed to honor, observe and uphold the United Nations Declaration on the Rights of Indigenous Peoples (the "UNDRIP") when it issued an insufficient DEIS that does not assure all indigenous people the rights that are afforded them under the Declaration.**<br><br>The 2007 United Nations Declaration of the Rights of Indigenous Peoples (UNDRIP) affirms that Indigenous people have the right to be who they are, that they have the right to exist as distinct peoples, and that they have the right to "maintain, protect and develop the past, present and future manifestations of their cultures." Further, Indigenous Peoples have the right to "practice and revitalize" their sacred cultural traditions and customs. The UNDRIP affirms the rights of indigenous peoples to "manifest, practice, develop and teach their spiritual and religious traditions, customs and ceremonies," and "to maintain, protect, and have access in privacy to their religious and cultural sites." The UNDRIP further |

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| 334 | **Cultural Resources** | The Religious Land Use and Institutionalized Persons Act, by its terms, has no application here. The Draft Environmental Impact Statement describes a proposed action that, after consultation and coordination efforts, would accommodate and preserve (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 Draft 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 Gila River Indian Community.<br><br>Even if a substantial burden existed, the construction of roads to meet regional transportation needs is a central and compelling function of government, and the project is designed to accomplish that compelling function with the least impact possible under the circumstances.<br><br>The Arizona Department of Transportation and Federal Highway Administration have been fully attentive to concerns expressed by the Gila River Indian Community and reiterate that position in this comment; the agencies have taken these concerns into account in describing potential impacts in the Draft Environmental Impact Statement, in ensuring that access to South Mountain is preserved, and in developing and recommending the implementation of numerous mitigation measures. |
| 335 | **Cultural Resources** | The United States has confirmed that the United Nations Declaration on the Rights of Indigenous Peoples Declaration is "not legally binding or a statement of current international law" and is limited to "moral and political force." *Announcement of U.S. Support for the United Nations Declaration on the Rights of Indigenous Peoples*, U.S. State Department (December 17, 2010) (available at: state.gov/documents/organization/154782.pdf). The government's Announcement further clarified that the United States "understands [that the Declaration] calls for a process of meaningful consultation with tribal leaders, but not necessarily the agreement of those leaders, before the actions addressed in those consultations are taken." The Draft Environmental Impact Statement describes a proposed action that, after consultation and coordination efforts, would accommodate and preserve (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 Draft 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 Gila River Indian Community. |

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| | recognizes that much of what Indigenous peoples hold sacred in this world has been taken or lost "without their free, prior and informed consent or in violation of their laws, traditions and customs," and it calls for states to provide redress "through effective mechanisms" and "through fair, transparent and effective mechanisms developed in conjunction with indigenous peoples concerned." The phrase "through effective mechanisms" appears twice in Articles 11 and 12, serving to underscore the fact that nation states should utilize the power of regulatory, legislative and other authorities to assure that the rights of Indigenous peoples to practice and worship in sacred sites and continue religious and cultural ways of living are secure. Article 8 of the UNDRIP specifically prohibits the "forced assimilation or destruction of Indigenous culture." |
| 336 | In the present case, civil rights and human rights within the UNDRIP mandate that an evaluation of the traditional cultural properties be performed with direct, informed with the Indigenous Peoples' free, prior and informed consent. Here, the Indigenous Peoples are the tribes affected by the Freeway project. Free, prior and informed consent must occur *before* any route of the proposed project can be selected. Article 7 of the UNDRIP afford Indigenous peoples the right to "decide their own priorities for the process of development as it affects their lives, beliefs, institutions and spiritual well-being and the lands they occupy or otherwise use, and to exercise control over their economic, social and cultural development". In no way does the UNDRIP sanctify or suggest validity of the FHWA's incomplete, in accurate and unfounded Section 106 process nor its finding that the proposed Freeway project is exempted from Section 4(f) protections. |
| 337 | In other words, FHWA continues to violate the rights afforded to the tribes as the affected Indigenous Peoples in the present matter by proceeding with the E1 Alternative of the Freeway project in the manner so described in the April 2013 DEIS. Further, the United States, through its FHWA in the present matter, is continuing to violate Articles 11&12 by failing to afford civil and human rights outlined in the UNDRIP. |
| | CONCLUSION |
| 338 | The FHWA and ADOT's proposed South Mountain Freeway project does not meet the requirements of the NEPA, Section 4(f) of the Department of Transportation Act, the NHPA, the ARPA, the RFRA, the RLUIPA, and the UNDRIP. FHWA and ADOT should re-initiate the Section 106 process with reasonable and good faith efforts to consult all tribes and amend any and all technical studies identifying, assessing, evaluating and mitigating adverse impacts to cultural resources with tribal input. Further, FHWA and ADOT should eliminate alternative routes that are located near or through the South Mountain, the Gila River Indian Community and other sites considered of sacred or of cultural significance, correct the DEIS and take future action to become compliant with all applicable laws, ensure that all tribes and Indigenous Peoples are afforded their basic human and civil rights as outlined in the UNDRIP, and appropriately include counsel from air toxicology experts and the findings of the Environmental Protection Agency's Joint Air Toxic Assessment Project issued in 2005. |
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| 336 | **Cultural Resources** | As described in the Draft Environmental Impact Statement, the consultation process with Native American tribes, and in particular with the Gila River Indian Community, was lengthy, repeated, and extensive. Traditional cultural properties were evaluated through consultation with affected tribes and are described in the Draft Environmental Impact Statement. Although the consent of tribal leaders is not required, as the United States made clear in its decision discussed in an earlier response, the Tribal Historic Preservation Officer concurs with the mitigation measures to be imposed in connection with the E1 Alternative affecting a small portion of the South Mountains.<br>The quoted language in the comment attributed to Article 7 of the Declaration does not appear there. The language appears to derived from the International Labor Organization's 1989 Indigenous and Tribal Peoples Convention (Convention No. 169). Convention 169 has never been ratified by the United States, which has not agreed to align legislation, policies, and programs with the Convention as a legal requirement.<br>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.<br>A thorough feasible and prudent avoidance analysis of the South Mountains was conducted as presented in Chapter 5 of the Draft and Final Environmental Impact Statements and concluded avoidance to the direct use of the resource was not feasible and prudent. In support of this response, consider the following review from the U.S. Department of the Interior on the Draft Environmental Impact Statement: comment: "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." The complete letter can be found in Appendix 7, Volume III, on page B4 of the Final Environmental Impact Statement. |
| 337 | **Cultural Resources** | The Draft Environmental Impact Statement describes a proposed action that, after consultation and coordination efforts, would accommodate and preserve (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 Draft 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 Gila River Indian Community. |

(Response 338 begins on next page)

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| 339 | Finally, the National Advisory Council on Historic Preservation should conduct a Council review in accordance with Section 106, 36 C.F.R. §800.8(c)(2) and §800.9 to fully assess the FHWA and ADOT's actions and insufficiencies under the Section 106 process. Further, the Council should have the opportunity to review the abundant record that clearly demonstrates that the agencies failed to carry out their responsibilities assigned under Section 106 and the NEPA. The Council should therefore conduct a detailed case review to improve performance under Section 106 and/or correct the Section 106 and NEPA deficiencies. *See Id.* Upon findings, the Council may consider a recommendation to issue a stop work order to the Department of Transportation until Section 106 and NEPA compliance is attained. |

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| 338 | **Cultural Resources** | The Draft Environmental Impact Statement is the result of careful study and complies with the National Environmental Policy Act, Section 4(f) of the Department of Transportation Act, the National Historic Preservation Act, the Archaeological Resource Protection Act, the Religious Freedom Restoration Act, the Religious Land Use and Institutionalized Persons Act, and the United Nations Declaration on the Rights of Indigenous Peoples |
| 339 | **Cultural Resources** | As noted in the Final Environmental Impact Statement in Table 4-47 beginning on page 4-145, the National Advisory Council on Historic Preservation has been consulted. The Council declined to participate in the project twice, but encouraged development of a programmatic agreement without its involvement. |

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| | STATEMENT BY LORI RIDDLE<br>JULY 22, 2013 |
| 340 | There were very few meetings, very little public participation. The very first invite extended was days after the DEIS was released which was April 25th, 2013. The meeting invite was on April 30th, 2013 at 3pm in GRIC at the Governance Center. |
| 341 | Present were the TTT, Governor and Lt Governor (who is Chair of the TTT), various tribal departments, a rep from ADOT (who I can't recall), a rep from MAG, Senior Engineer Bob Hazlett as well as a few of the grassroots organizers. Represented were at least organizers from 5 groups. During this meeting we were given 3 copies of the DEIS to divide among our groups. A few days prior a community member attempted to call to find out how to obtain a copy of the DEIS, she was told in order to get a hard copy she would have to pay 50.00 dollars. During the April 30th meeting they also advised us about the 50.00 dollar charge for hard copies. At this meeting they also told us that free bus service to the May 21st DEIS public comment hearing in Phoenix at the Phoenix Convention Center. Details about how the free bus rides to the hearing saying community members could catch the bus in two locations and even take the light rail, but no other details regarding the bus service. They also went through the scenario of what to expect at the hearing, how it would be set up, etc. At the beginning of the meeting the ground rules set as relayed by TTT's David White and Stephen Lewis both individuals head of the TTT. We were not allowed to speak about anything else but what the process was going to be like, at this point there wasn't any mention that the Phoenix hearing would have some differences than the community forums. It was at this meeting where GRIC Lt Gov. had to officially request that a meeting (or two) be held in GRIC for community members that couldn't make the public hearing. At this meeting the handouts "Fact sheet" and "How to participate" were distributed. That's all I can recall. |
| | A few times I attempted to call the number provided on the handouts, which also had a recording say the they couldn't receive any more messages, the box was full, or something to that effect. I had also heard similar accounts from other people who were attempting to call the number. On the Thursday before the hearing I started to get worried because there was no further mention of free transport besides what was relayed to us during the April 30th meeting. I called the number provided and was able to have an opportunity to leave a voice message in which I said something to the effect of: Hello my name is Lori Riddle from the Gila River Indian Community and I'm trying to get some further information on bus service, passes or vouchers for my community members. How will this work? Would someone give me a call on my cell #520-610-3405, thank you. |
| | No Response!!!! |
| | So on the day of the Phoenix hearing May 21st, 2013 I lingered several hours. I only recognized Mr. Bob Hazlett from MAG, I approached Mr. Hazlett and asked him, "So who's in charge here"? He chuckled but didn't answer, I told him I ask because I have some concerns. I told him there's a problem with the number that's always full and can't take anymore new messages, his response, "Yes, we just found out today that it only holds so many messages (I think the number he gave me was 13)". So I told him maybe they need to empty that a few times a day? The other thing I mentioned was that I had left a |

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| 340 | **Public Involvement** | Offers to the Gila River Indian Community Manager to host a public outreach event on the Gila River Indian Community began in summer 2012. The Gila River Indian Community first officially responded to this offer at the April 30, 2013, meeting of the Transportation Technical Team. During this meeting, the Gila River Indian Community Manager requested a Gila River Indian Community Forum be conducted on the Gila River Indian Community following the public hearing. This was the only request the Arizona Department of Transportation received from the Gila River Indian Community regarding whether the Arizona Department of Transportation could hold a public outreach event during the public comment period. The Arizona Department of Transportation agreed to do so, and a Gila River Indian Community Forum was held on June 22, 2013, at the Komatke Boys & Girls Club on the Gila River Indian Community.<br>The Arizona Department of Transportation advertisement efforts of the public hearing and public forums are documented in Chapter 6 of the Final Environmental Impact Statement beginning on page 6-23. The Gila River Indian Community Communication and Public Affairs Office informed the Arizona Department of Transportation that all communication and distribution of informational materials on Gila River Indian Community land would be handled by the Communication and Public Affairs Office. Advertisement text regarding the project, the public comment period, the public hearing, and the various ways for the public to submit comments regarding the South Mountain Freeway Draft Environmental Impact Statement was given to the Gila River Indian Community's Public Information Officer at the Transportation Technical Team meeting on April 30, 2013. Two advertisements regarding the public hearing, information regarding the location and availability of the Draft Environmental Impact Statement, and a map of the alternatives was placed in the May 2013 monthly issue of the *Gila River Indian News*.<br>The Arizona Department of Transportation Community Relations distributed electronic notices (e-newsletters) through the Gila River Indian Community Government Delivery system to over 12,000 constituents who voluntarily signed up for project alerts along the Interstate 10 (Papago and Maricopa freeways) and State Route 202L (Santan Freeway). These electronic notices included notice of availability of the Draft Environmental Impact Statement (distributed on April 26, 2013); public hearing (distributed on May 10, 2013); the community forums (distributed on May 29, 2013); and closing of the Draft Environmental Impact Statement public comment period (June 2013). In addition, anyone who had attended a previous meeting on the proposed action and signed in received all of this information mailed individually. On May 6, 2013, 73,564 mailers were distributed to addresses within the Study Area. |
| 341 | **Public Involvement** | As stated on page 2-8 of the Draft Environmental Impact Statement, the meetings in 2010 between the Gila River Indian Community's Transportation Technical Team, Arizona Department of Transportation, and the Federal Highway Administration were held in response to a request received from the Governor of the Gila River Indian Community and were not a part of the agency or public scoping process. The information provided to the Transportation Technical Team was used by the Team and the Public Information Office in the Gila River Indian Community's outreach effort prior to the February 2012 coordinated referendum. The referendum and the outreach effort were tribal actions and, other than providing requested information to the Gila River Indian Community, the Arizona Department of Transportation and Federal Highway Administration did not participate in these actions. |

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STATEMENT BY LORI RIDDLE
JULY 22, 2013

There were very few meetings, very little public participation. The very first invite extended was days after the DEIS was released which was April 25th, 2013. The meeting invite was on April 30th, 2013 at 3pm in GRIC at the Governance Center.

Present were the TTT, Governor and Lt Governor (who is Chair of the TTT), various tribal departments, a rep from ADOT (who I can't recall), a rep from MAG, Senior Engineer Bob Hazlett as well as a few of the grassroots organizers. Represented were at least organizers from 5 groups. During this meeting we were given 3 copies of the DEIS to divide among our groups. A few days prior a community member attempted to call to find out how to obtain a copy of the DEIS, she was told in order to get a hard copy she would have to pay 50.00 dollars. During the April 30th meeting they also advised us about the 50.00 dollar charge for hard copies. At this meeting they also told us that free bus service to the May 21st DEIS public comment hearing in Phoenix at the Phoenix Convention Center. Details about how the free bus rides to the hearing saying community members could catch the bus in two locations and even take the light rail, but no other details regarding the bus service. They also went through the scenario of what to expect at the hearing, how it would be set up, etc. At the beginning of the meeting the ground rules set as relayed by TTT's David White and Stephen Lewis both individuals head of the TTT. We were not allowed to speak about anything else but what the process was going to be like, at this point there wasn't any mention that the Phoenix hearing would have some differences than the community forums. It was at this meeting where GRIC Lt Gov. had to officially request that a meeting (or two) be held in GRIC for community members that couldn't make the public hearing. At this meeting the handouts "Fact sheet" and "How to participate" were distributed. That's all I can recall.

342 A few times I attempted to call the number provided on the handouts, which also had a recording say the they couldn't receive any more messages, the box was full, or something to that effect. I had also heard similar accounts from other people who were attempting to call the number. On the Thursday before the hearing I started to get worried because there was no further mention of free transport besides what was relayed to us during the April 30th meeting. I called the number provided and was able to have an opportunity to leave a voice message in which I said something to the effect of: Hello my name is Lori Riddle from the Gila River Indian Community and I'm trying to get some further information on bus service, passes or vouchers for my community members. How will this work? Would someone give me a call on my cell #520-610-3405, thank you.

No Response!!!!

343 So on the day of the Phoenix hearing May 21st, 2013 I lingered several hours. I only recognized Mr. Bob Hazlett from MAG, I approached Mr. Hazlett and asked him, "So who's in charge here"? He chuckled but didn't answer, I told him I ask because I have some concerns. I told him there's a problem with the number that's always full and can't take anymore new messages, his response, "Yes, we just found out today that it only holds so many messages (I think the number he gave me was 13)". So I told him maybe they need to empty that a few times a day? The other thing I mentioned was that I had left a

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| 342 | **Public Involvement** | The initial hotline capacity was 20 messages; it was expanded to 80 on May 17, 2013. Any questions that came in regarding how to participate, including any shuttle bus or transportation questions, were forwarded to one individual to address. Conversation record log sheets were kept for these efforts. |
| 343 | **Public Involvement** | For the first time in the State's history, a shuttle bus to the hearing was provided from six locations in the Phoenix area, including two on the Gila River Indian Community (Komatke Boys & Girls Club and the Governance Center in Sacaton). All advertisements regarding the public hearing provided telephone numbers and electronic contact information regarding information on the shuttle schedules and pick-up locations. Transportation to the Gila River Indian Community forum was not provided.<br>As noted in Chapter 2 of the Final Environmental Impact Statement, efforts to involve the Gila River Indian Community in the environmental impact statement process have been extensive. Public involvement with the Gila River Indian Community was conducted as requested by the tribal government. Prior to October 2005, early efforts to involve the Gila River Indian Community included attending tribal meetings and monthly meetings with Gila River Indian Community Departments (see discussion beginning on page 2-8 of the Draft and Final Environmental Impact Statements). On October 14, 2005, the Gila River Indian Community requested that all project-related communications take place at a government-to-government level (see letter on page A152 of Appendix 1-1). This request was honored by the Arizona Department of Transportation and Federal Highway Administration. All public involvement efforts were implemented by the Gila River Indian Community's public involvement officer. |

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| | message on the number and relayed the message I had left the week prior. After that I said so how was this supposed to work? Because we could have gotten more tribal members present. He shrugged his shoulders and said, "Well it's too late now". Also on the day of the Phoenix hearing the participants received the small booklet "SMTN Meeting Guide". This was the first time we as community members had seen this. The guide did say the community forums were going to be utilizing a different format. It also listed only 1 GRIC forum and listed it as tentative. |
| 344 | The meeting in GRIC was short notice fliers went out to the community literally days before the event. Before this event at least three weeks prior one community organizer emailed a request urging GRIC to provide transport to community members to the meeting. There is a lack of community members without vehicles. No response. Lastly a few days before organizers and community voiced their concerns over the inability to voice, in open forum, their concerns at this meeting. We additionally asked again if transport would be provided, they finally said yes, but us organizers had to provide a list of community members who needed transport. This was not expected, it was too short of notice to gather all that information. The day of the GRIC forum were dissatisfied the lack of inability to openly voice their concerns. The video was looped, as posted on ADOT's website, throughout the day. |
| 345 | Previously, in two district meetings that I had attended one in district six and the other in district four. There were concerns about ADOT not coming to present the information themselves. The one elder in district six asked who they were working for? He (the elder) stated that he felt like the TTT should not have been presenting the information but ADOT should have been the ones bringing this information to the community. That same consensus was expressed at the district four meeting. |
| | Signed, Lori Riddle |
| | July 22, 2013 |

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| 344 | **Public Involvement** | The Arizona Department of Transportation advertisement efforts of the public hearing and public forums are documented in Chapter 6 of the Final Environmental Impact Statement beginning on page 6-23. The Gila River Indian Community Communication and Public Affairs Office informed the Arizona Department of Transportation that all communication and distribution of informational materials on Gila River Indian Community land would be handled by the Communication and Public Affairs Office. Advertisement text regarding the project, the public comment period, the public hearing, and the various ways for the public to submit comments regarding the South Mountain Freeway Draft Environmental Impact Statement was given to the Gila River Indian Community's Public Information Officer at the Transportation Technical Team meeting on April 30, 2013. Two advertisements regarding the public hearing, information regarding the location and availability of the Draft Environmental Impact Statement, and a map of the alternatives was placed in the May 2013 monthly issue of the *Gila River Indian News*.<br>The Arizona Department of Transportation Community Relations distributed electronic notices (e-newsletters) through the Gila River Indian Community Government Delivery system to over 12,000 constituents who voluntarily signed up for project alerts along the Interstate 10 (Papago and Maricopa freeways) and State Route 202L (Santan Freeway). These electronic notices included notice of availability of the Draft Environmental Impact Statement (distributed on April 26, 2013); public hearing (distributed on May 10, 2013); the community forums (distributed on May 29, 2013); and closing of the Draft Environmental Impact Statement public comment period (June 2013). In addition, anyone who had attended a previous meeting on the proposed action and signed in received all of this information mailed individually. On May 6, 2013, 73,564 mailers were distributed to addresses within the Study Area. |
| 345 | **Public Involvement** | As noted in Chapter 2 of the Final Environmental Impact Statement, efforts to involve the Gila River Indian Community in the environmental impact statement process have been extensive. Public involvement with the Gila River Indian Community was conducted as requested by the tribal government. Prior to October 2005, early efforts to involve the Gila River Indian Community included attending tribal meetings and monthly meetings with Gila River Indian Community Departments (see discussion beginning on page 2-8 of the Draft Environmental Impact Statement). On October 14, 2005, the Gila River Indian Community requested that all project-related communications take place at a government-to-government level (see letter on page A152 of Appendix 1-1). This request was honored by the Arizona Department of Transportation and Federal Highway Administration. All public involvement efforts were implemented by the Gila River Indian Community's public involvement officer. |

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## Additional Comments

### One

Patricia Lawlis Comments on the Draft Environmental Impact Statement (DEIS) for the proposed South Mountain Freeway (SMF), July 2013

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**Comments on the Draft Environmental Impact Statement (DEIS) for the proposed South Mountain Freeway (SMF), July 2013**

It is the job of the Maricopa Association of Governments (MAG) and the Arizona Department of Transportation (ADOT) to plan for transportation throughout the Valley of the Sun. This includes proper planning for keeping unnecessary traffic out of the valley as well as planning for the proper flow of traffic throughout the area. It also includes planning for moving people around using all modes of transportation, and it should include new and visionary ideas for handling the transportation needs of the valley.

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Based on the MAG and ADOT mandates, the purpose and need of the South Mountain Freeway (SMF) should be well thought out and based on extensive modeling and analysis. Instead, what we see in the Draft Environmental Impact Statement (DEIS) is the perpetuation of a pre-determined idea from 30 years ago that is neither well thought out nor based on any type of valid modeling and analysis. It is just "we need more freeways," and this one has been especially designed for trucks to travel through the South Mountain corridor. The fact that the geography of the South Mountain corridor doesn't support a freeway doesn't matter. This freeway plan appears to be nothing but a political response to the desires of the trucking industry.

347 348

**Purpose and Need (P&N)**

In fact, the SMF was no visionary idea 30 years ago (DEIS page 1-8). From the very beginning, it was planned as a Phoenix bypass. At that time, the Phoenix metropolitan area was not as spread out as it is now. Yet MAG was supposedly looking at growth patterns and trying to plan for 30 years into the future (which is now). It should have been clear even then that the metropolitan area would spread far beyond the extent of the SMF and that a bypass should be out farther from the core of the city. Pollution was bad enough at that time that planning should have been directed at getting more vehicle pollutants out of the metropolitan area. Yet it wasn't until much more recently that SR-85 from I-10 at Buckeye to I-8 at Gila Bend to I-10 at Casa Grande was designated as a truck bypass to direct a significant source of pollution out of the city core. And even then, the truck bypass was identified only under pressure from the Environmental Protection Agency (EPA) and the Arizona Department of Environmental Quality (ADEQ). And MAG persisted with claiming a need for the SMF – no longer calling the SMF a truck bypass, but intending that nevertheless. Why should we believe that MAG can do a better job of looking at 30 years into the future now than they could 30 years ago?

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It is clear from the DEIS, as well as from previous MAG and ADOT statements and actions, that the SMF is intended to be a truck bypass, and that it is currently being disguised as a "regional" highway, which evidently seems to mean that it would be primarily for truck traffic to and from the commercial area around 51st Avenue. The SMF would negate the current truck bypass. An analysis of truck traffic patterns, and

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| 346 | | Comment noted. |
| 347 | **Purpose and Need** | 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 vehicles using 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). |
| 348 | **Purpose and Need** | As presented in Chapter 1, *Purpose and Need*, an objective and unbiased examination of the existing and planned future transportation network in the Study Area was undertaken to determine if the catalyst for the need for the Environmental Impact Statement (being the proposed action) was still warranted. As explained in the chapter, the examination successfully attempted to provide an answer to whether or not a transportation problem(s) exist and would continue to exist in the foreseeable future. The analysis was undertaken in accordance with the National Environmental Policy Act and Federal Highway Administration guidance and policy for implementing the National Environmental Policy Act. The results confirmed the transportation problems as framed in the region's adopted long range transportation plans (both past and present) still exist and would continue to exist in the foreseeable future. The need for action was not to implement the long range plan objectives but to correct a transportation problem in the region; a beneficial outcome in doing so was consistency with the region's long range transportation planning activities.<br>The purpose and need criteria used to frame the transportation problem are described (see Figures 1-8, 1-9, 1-10, 1-11, 1-12, and 1-13). As summarized in the section, *Conclusions*, beginning on page 1-21 of the Draft Environmental Impact Statement, the analysis confirmed that without a major transportation facility in the Study Area, the region's transportation network (as recognized in over 25 years of transportation planning) will not be able to efficiently move goods and people throughout the region without major investments in the region. |
| 349 | **Purpose and Need** | The Maricopa Association of Governments regional travel demand model projects that truck traffic will represent approximately 10 percent of the total traffic on the proposed action.<br>Chapter 1, *Purpose and Need*, does not have a truck bypass as 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 |

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| | particularly the shifting of a truck bypass from outside the metropolitan area to an area close to downtown is ignored throughout the DEIS, although such an analysis is also prescribed by the National Environmental Policy Act (NEPA). |
| 350 | At one point when funds were short for completing the SMF (early 90s), one idea that ADOT considered was allowing the highway to be built as a toll road. Then, an independent group interested in possibly building this toll road did an analysis of the cost-effectiveness of such a highway (very strongly correlated with the need for the highway). The result of their analysis was that they declined to build the freeway, a clear indication of the lack of need. |
| 351 | Rather than dropping the idea of the SMF and re-examining the real needs of the region, MAG and ADOT persisted with the SMF plan. |
| 352 | As the CANAMEX highway idea matured, it was designed to go near or through Phoenix. Unless or until I-11 is built, according the CANAMEX website, the CANAMEX would follow I-10, and truckers would certainly find the SMF "short cut" to be most appealing. But ADOT denied the intention of using the SMF for a truck bypass, so they also denied the intention of using it for the CANAMEX. ADOT officially declared that the truck bypass along SR 85 would be a part of CANAMEX. Yet this contradicts assertions on the CANAMEX web site. |
| | Of course, truck drivers can read maps and see when a short cut exists for them, so a true analysis of the situation would show the CANAMEX traffic using the SMF, regardless of what the "official" route of the CANAMEX is designated to be. ADOT's official response to that is that they "can't help" what truckers do but they expect most of them to use the truck bypass. Really!? Isn't it a part of their job of planning to provide realistic transportation corridors that will induce the traffic to use the appropriate corridors? And to look at all possible means of transportation to satisfy the entire needs of an area? A proper analysis should definitively show where the traffic, including the truck traffic, would really go. |
| | Recently, when ADOT improved SR 85, it became a 4-lane highway, but it was not made a freeway. One motivation for this lack of foresight was apparently because as long as it is not a freeway it cannot be designated as an interstate highway. A freeway bypass could be designated as I-10 and take all pass-through traffic away from the Phoenix metropolitan area. This would serve as a bypass for both truck and automobile traffic. Yet this has apparently never been considered. Or has it been purposely ignored? It is certainly not in the DEIS. |
| | The DEIS states (page 5-20) that a tunnel option through South Mountain was rejected because it would limit the ability of trucks hauling hazardous materials to use the SMF. This is just another indication that the SMF is intended as a truck bypass. |
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| 349 (cont.) | | 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.<br>Commercial trucks would use the proposed action. As with all other freeways in the Maricopa Association of Governments 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. And as with travel on all other freeways in the Maricopa Association of Governments region, the primary users of the proposed action would be automobiles.<br>The trucking industry depends on the efficient and fast movement of freight and on travel time savings. Trucking destinations in the Phoenix metropolitan area (either distribution centers or for local commerce) would still need trucks to enter congested areas. Choosing to travel on the proposed action rather than Interstate 10 would not translate to any substantial travel time benefits. Therefore, 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 in the Final Environmental Impact Statement). |
| 350 | **Alternatives** | In 1996, a consortium of private companies proposed to build the South Mountain Freeway as a toll road. The consortium later withdrew its proposal, saying the project was not financially feasible (see Alignment Recommendation South Mountain Corridor Loop 202, as noted on page 1-8 of the Draft Environmental Impact Statement). The determination not to construct the freeway as a toll road was not an indication that the freeway was not needed. In the executive summary to the above referenced report, the proposers state: "The Arizona Transportation Group, LLC still believes that the construction and financing of the South Mountain Portion of the Loop 202 as a toll road is feasible and looks forward to teaming with the Arizona Department of Transportation to provide this important segment of the Maricopa County's regional highway system." The reason the proposal was determined to not be financially feasible was because the public and policy-makers were not supportive of paying support tolls. |
| 351 | **Purpose and Need** | Chapter 1, *Purpose and Need*, examines the purpose and need for the proposed action in terms of defining a transportation problem. In doing so, assumptions associated with 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 in characteristics to the transportation problem that existed in prior years. The alternatives analyses considered numerous modal alternatives, and it was concluded through a robust screening process that a road facility would best address the transportation problem defined. |
| 352 | **Trucks** | The 1995 Congressional federal definition states:<br>"In the State of Arizona, the CANAMEX Corridor shall generally follow – (i) I-19 from Nogales to Tucson; (ii) I-10 from Tucson to Phoenix; and (iii) United States Route 93 in the vicinity of Phoenix to the Nevada Border." (*Source*: <canamex.org/canamex/federal-definition>) |

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| | particularly the shifting of a truck bypass from outside the metropolitan area to an area close to downtown is ignored throughout the DEIS, although such an analysis is also prescribed by the National Environmental Policy Act (NEPA).<br><br>At one point when funds were short for completing the SMF (early 90s), one idea that ADOT considered was allowing the highway to be built as a toll road. Then, an independent group interested in possibly building this toll road did an analysis of the cost-effectiveness of such a highway (very strongly correlated with the need for the highway). The result of their analysis was that they declined to build the freeway, a clear indication of the lack of need.<br><br>Rather than dropping the idea of the SMF and re-examining the real needs of the region, MAG and ADOT persisted with the SMF plan.<br><br>As the CANAMEX highway idea matured, it was designed to go near or through Phoenix. Unless or until I-11 is built, according the CANAMEX website, the CANAMEX would follow I-10, and truckers would certainly find the SMF "short cut" to be most appealing. But ADOT denied the intention of using the SMF for a truck bypass, so they also denied the intention of using it for the CANAMEX. ADOT officially declared that the truck bypass along SR 85 would be a part of CANAMEX. Yet this contradicts assertions on the CANAMEX web site. |
| 353 | Of course, truck drivers can read maps and see when a short cut exists for them, so a true analysis of the situation would show the CANAMEX traffic using the SMF, regardless of what the "official" route of the CANAMEX is designated to be. ADOT's official response to that is that they "can't help" what truckers do but they expect most of them to use the truck bypass. Really!? Isn't it a part of their job of planning to provide realistic transportation corridors that will induce the traffic to use the appropriate corridors? And to look at all possible means of transportation to satisfy the entire needs of an area? A proper analysis should definitively show where the traffic, including the truck traffic, would really go. |
| 354 | Recently, when ADOT improved SR 85, it became a 4-lane highway, but it was not made a freeway. One motivation for this lack of foresight was apparently because as long as it is not a freeway it cannot be designated as an interstate highway. A freeway bypass could be designated as I-10 and take all pass-through traffic away from the Phoenix metropolitan area. This would serve as a bypass for both truck and automobile traffic. Yet this has apparently never been considered. Or has it been purposely ignored? It is certainly not in the DEIS. |
| 355 | The DEIS states (page 5-20) that a tunnel option through South Mountain was rejected because it would limit the ability of trucks hauling hazardous materials to use the SMF. This is just another indication that the SMF is intended as a truck bypass. |
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| 352 (cont.) | | The definition was intentionally left broad so that local, regional, and state agencies could further define the specific routes for the corridor.<br>In April 2001, the Maricopa Association of Governments Regional Council formally adopted the route depicted in the map on page 3-64 as the CANAMEX Corridor within Maricopa County. As noted on page 3-64 of the Draft Environmental Impact Statement, in the Maricopa County area the CANAMEX Corridor is to follow Interstate 10 from Tucson to Interstate 8 near Casa Grande, Interstate 8 west to State Route 85 near Gila Bend, State Route 85 north to Interstate 10 northwest of Buckeye, Interstate 10 west to Wickenburg Road, Wickenburg Road to Vulture Mine Road west of Wickenburg, and then connect with the planned U.S. Route 93/U.S. Route 60 Wickenburg Bypass. |
| 353 | **Trucks** | 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, if implemented, is expected to operate under the same rules as other similar facilities in the state; truck traffic would be expected to be permissible (see text box on page 4-157 of the Final Environmental Impact Statement).<br>The *Regional Transportation Plan* includes provisions for improving State Route 85 north of the Gila River to a freeway-type facility. There is no intention to change the designation of existing Interstate highways through Arizona. The State Route 85/Interstate 8 corridor is signed as the Phoenix bypass and will continue to provide a bypass route.<br>The CANAMEX and Phoenix truck bypass (Interstate 8/State Route 85) routes are not mandatory for truck traffic; they are recommended. The Arizona Department of Transportation does not enforce these routes. It is not anticipated that these routes would be enforced as mandatory in the future. The reader is referred to page 3-64 of the Draft Environmental Impact Statement that elaborates on the relation of truck traffic and the proposed action. |
| 354 | **Alternatives** | The *Regional Transportation Plan* includes provisions for improving State Route 85 north of the Gila River to a freeway-type facility. There is no intention to change the designation of existing Interstate highways through Arizona. The State Route 85/Interstate 8 corridor is signed as the Phoenix bypass and will continue to provide a bypass route. |
| 355 | **Alternatives** | The noted text is but one of many factors that were used to eliminate the tunnel options through the South Mountains. The text boxes on pages 3-16 and 3-17 of the Draft Environmental Impact Statement discuss the additional factors that weighed as strong negatives for tunnel options: impacts, engineering factors, maintenance costs and issues, security, constructibility, and construction costs. 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 vehicles using the proposed freeway would be automobiles. The Maricopa Association of Governments regional travel demand model projects that truck |

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| 356 | Perhaps the original intent of the SMF truck bypass was to provide a more convenient route for trucks going in and out of the commercial area around 51st Avenue. Such thinking, however, indicates a decided lack of true regional planning. Any form of valid traffic analysis of the entire region immediately shows that in addition to the CANAMEX traffic, other interstate truck traffic would also prefer this "short cut" to the desirable (in terms of clean air) truck bypass route along SR 85. Any traffic solution that brings more truck traffic through the metropolitan area is not a viable solution. So the SMF is not a viable solution. The truck bypass must stay outside of the metropolitan area. |
| 357 | A valid and extensive analysis of the transportation needs of the South Mountain corridor has not been conducted. Such an analysis would show the true needs of local residents (as opposed to induced needs) as well as a detailed breakdown of truck traffic within and through the entire area, including CANAMEX trucks, pass-through trucks, and trucks with an origin and destination (O&D) of the commercial area near 51st Avenue. Such a valid analysis would show that any true need for regional transportation could be at least partly satisfied by modes other than automobile traffic (such as light rail). There is a need for traffic to be able to get in and out of Laveen without having to compete with trucks on the arterial streets, but this could be satisfied by a highway from Laveen to I-10 West. It is the O&D truck needs that require a freeway, but even these needs could be satisfied by a freeway spur from I-10 West to the commercial area around 51st Avenue. The South Mountain corridor is not a viable location for such truck traffic.<br><br>To be more specific in terms of the DEIS, ADOT justifies the Purpose and Need (P&N) for the construction of the SMF in Chapter 1. There are many specific difficulties with this "justification."<br><br>1. The socio-economic data projections presented in the P&N and elsewhere in the DEIS are faulty. The socio-economic data used in the DEIS was developed by MAG using 2005 census data. When the results of the 2010 U.S. Census results became available, it was obvious that MAG's forecast of socio-economic data based on the 2005 special Census were too high by a large margin.<br>2. Since socio-economic data are the starting point for the MAG Travel Model, the travel-related forecasts presented in the P&N and elsewhere in the DEIS are faulty. Since MAG plans to update the socio-economic projections, why exactly did ADOT release a DEIS before the updates were ready? Because the changes will be extensive, sufficient time must be allowed for a second review of the DEIS prior to the preparation of the FEIS.<br>3. The forecast of vehicle miles of travel lacks credibility because it is contrary to national trends and also because the methodology used for computation is not explained clearly. Figure 1-4 in the Purpose and Need chapter of the DEIS discusses daily vehicle miles of travel (VMT) at one rate while the Regional Transportation Plan (RTP) uses different data. A further consideration is that travel surveys nationally and in the MAG region indicate<br><br>3 |

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| 355 (cont.) | | 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; therefore, planning must account for trucks using the proposed freeway. |
| 356 | **Trucks** | The signed truck bypass for the Phoenix metropolitan area is today and will continue to be State Route 85 and Interstate 8. The Maricopa Association of Governments regional travel demand model projects that truck traffic will represent approximately 10 percent of the total traffic on the proposed action.<br>Chapter 1, *Purpose and Need*, does not have a truck bypass as 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.<br>Commercial trucks would use the proposed action (as noted on page 3-64 of the Draft Environmental Impact Statement). As with all other freeways in the Maricopa Association of Governments 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. And as with travel on all other freeways in the Maricopa Association of Governments region, the primary users of the proposed action would be automobiles.<br>The trucking industry depends on the efficient and fast movement of freight and on travel time savings. Trucking destinations in the Phoenix metropolitan area (either distribution centers or for local commerce) would still need trucks to enter congested areas. Choosing to travel on the proposed action rather than Interstate 10 would not translate to any substantial travel time benefits. Therefore, 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. |
| 357 | **Purpose and Need, Alternatives** | As presented in Chapter 1, *Purpose and Need*, of the Draft Environmental Impact Statement, an objective and unbiased examination of the existing and planned future transportation network in the Study Area was undertaken to determine if the catalyst for the need for the Environmental Impact Statement (being the proposed action) was still warranted. As explained in the chapter, the examination successfully attempted to provide an answer to whether or not a transportation problem(s) exist and would continue to exist in the foreseeable future. The analysis was undertaken in accordance with the National Environmental Policy Act and Federal Highway Administration guidance and policy for implementing the National Environmental Policy Act. The results confirmed the transportation problems as framed in the region's adopted long range transportation plans (both past and present) still exist and would continue to exist in the foreseeable future. This problem is associated with east-west regional mobility in the southwestern region of the Phoenix metropolitan area.<br>The traffic analysis does evaluate the applicability of alternative modes to meet the needs for regional transportation. Figure 3-14 shows that transit enhancements (such as light rail), roadway enhancements (such as more arterial street lanes), and |

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| | Perhaps the original intent of the SMF truck bypass was to provide a more convenient route for trucks going in and out of the commercial area around 51st Avenue. Such thinking, however, indicates a decided lack of true regional planning. Any form of valid traffic analysis of the entire region immediately shows that in addition to the CANAMEX traffic, other interstate truck traffic would also prefer this "short cut" to the desirable (in terms of clean air) truck bypass route along SR 85. Any traffic solution that brings more truck traffic through the metropolitan area is not a viable solution. So the SMF is not a viable solution. The truck bypass must stay outside of the metropolitan area.<br><br>A valid and extensive analysis of the transportation needs of the South Mountain corridor has not been conducted. Such an analysis would show the true needs of local residents (as opposed to induced needs) as well as a detailed breakdown of truck traffic within and through the entire area, including CANAMEX trucks, pass-through trucks, and trucks with an origin and destination (O&D) of the commercial area near 51st Avenue. Such a valid analysis would show that any true need for regional transportation could be at least partly satisfied by modes other than automobile traffic (such as light rail). There is a need for traffic to be able to get in and out of Laveen without having to compete with trucks on the arterial streets, but this could be satisfied by a highway from Laveen to I-10 West. It is the O&D truck needs that require a freeway, but even these needs could be satisfied by a freeway spur from I-10 West to the commercial area around 51st Avenue. The South Mountain corridor is not a viable location for such truck traffic. |
| 358 | To be more specific in terms of the DEIS, ADOT justifies the Purpose and Need (P&N) for the construction of the SMF in Chapter 1. There are many specific difficulties with this "justification." |
| 359 | 1. The socio-economic data projections presented in the P&N and elsewhere in the DEIS are faulty. The socio-economic data used in the DEIS was developed by MAG using 2005 census data. When the results of the 2010 U.S. Census results became available, it was obvious that MAG's forecast of socio-economic data based on the 2005 special Census were too high by a large margin.<br>2. Since socio-economic data are the starting point for the MAG Travel Model, the travel-related forecasts presented in the P&N and elsewhere in the DEIS are faulty. Since MAG plans to update the socio-economic projections, why exactly did ADOT release a DEIS before the updates were ready? Because the changes will be extensive, sufficient time must be allowed for a second review of the DEIS prior to the preparation of the FEIS. |
| 360 | 3. The forecast of vehicle miles of travel lacks credibility because it is contrary to national trends and also because the methodology used for computation is not explained clearly. Figure 1-4 in the Purpose and Need chapter of the DEIS discusses daily vehicle miles of travel (VMT) at one rate while the Regional Transportation Plan (RTP) uses different data. A further consideration is that travel surveys nationally and in the MAG region indicate |
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| 357 (cont.) | | system management and demand management strategies could address a portion of the system-wide demand; however, even with these improvements, the proposed freeway would still be a greatly needed element of the overall transportation system.<br>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. The purpose and need and analysis of alternatives were updated and reevaluated using these new socioeconomic projections and corresponding projections related to regional traffic. While new projections based on the 2010 Census showed a lower anticipated population and vehicle miles traveled in 2035 than the previous projections, the conclusions reached in the Draft Environmental Impact Statement were validated in the Final Environmental Impact Statement (see Chapter 3, *Alternatives*). The traffic analysis demonstrated that the proposed project is needed today and will continue to be needed into the future.<br>According to 23 Code of Federal Regulations §771.111(f)," the action evaluated in the environmental impact statement must connect logical termini and be of sufficient length to address environmental matters on a broad scope...". The proposed action should satisfy the project need and should be considered in the context of the local area socioeconomics and topography, the future travel demand, and other infrastructure improvements in the area. A partial freeway from Interstate 10 (Papago Freeway) to Laveen Village is not feasible because it would not meet the proposed freeway's identified purpose and need.<br>For a true understanding of origins and destinations of all vehicles, including trucks, that would use the freeway, please refer to Figure 3-18, on Draft Environmental Impact Statement page 3-36. The reader is referred to page 3-64 of the Draft Environmental Impact Statement that elaborates on the relation of truck traffic and the proposed action. |
| 358 | | See responses to specific comments below. |
| 359 | **Purpose and Need** | 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.<br>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. The purpose and need and analysis of alternatives were updated and reevaluated using these new socioeconomic projections and corresponding projections related to regional traffic. While new projections based on the 2010 Census showed a lower anticipated population and vehicle miles traveled in 2035 than the previous projections, the conclusions reached in the Draft Environmental Impact Statement were validated in the Final Environmental Impact Statement (see Chapter 3, *Alternatives*). The traffic analysis demonstrated that the proposed project is needed today and will continue to be needed into the future. |
| 360 | **Purpose and Need** | The comment relies on national trends for travel; however, the local conditions and setting of the Phoenix metropolitan area are not consistent with areas of high-density cities in other parts of the country. In Maricopa County, daily vehicle miles |

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| | that travel statistics such as trip length, VMT per person, and VMT per household have been steady over time in recent years, contradicting both the DEIS and the RTP. |
| 361 | 4. As presented in the DEIS, the P&N defines the need as "completing the Regional Freeway System," "adding capacity to the regional freeway and arterial system," and "serving travel needs in the Southwest area." No compelling need specifically for the SMF is presented. The P&N statement in the DEIS is very general and is focused on the need to add freeway capacity but not focused on building the SMF. The problems identified that lead to the proposed action (not direct quotes) are:<br>a. Accommodating population and employment growth in the Phoenix Metropolitan Area.<br>b. Completing the Regional Freeway and Highway System, that was delineated about 30 years ago.<br>c. Providing additional freeway capacity to reduce congestion in the Urban Core.<br>d. Serving travel needs in the Southwest portion of the Metropolitan Area.<br>The P&N in the DEIS did not address the compelling problems and needs in the Study Area that the SMF would be intended to alleviate. Specific evaluation criteria should have been developed to assess the effectiveness of each alternative to alleviate, wholly or partially, each of the problems in the Study Area. This lack of specificity in the P&N affects the identification of alternatives and the evaluation of alternatives. |
| 362 | 5. Some reasonable and feasible alternatives were eliminated early in the screening process. There is no technical or scientific rationale or justification presented as to why the project Study Area comprises the precise area it does. The impression is that these boundaries were drawn for political and procedural reasons to comport with MAG's and ADOT's previous planning efforts, rather than to allow a comprehensive, objective NEPA assessment. Specifically, this Study Area appears configured so as to exclude freeway alternatives further south or west and, thus, to deliberately avoid evaluation of other "reasonable alternatives" to the Pecos Road alignment. Although outside of MAG jurisdiction, alternatives in Pinal and Pima Counties should have been given due consideration. The DEIS was not properly scoped.<br>6. The Description of the Proposed Action in the Summary Chapter fails to provide details essential for informed decision-making. The action is described generally as building a freeway in compliance with the RTP.<br>7. Since the evaluation of alternatives is based on the travel forecasts (among other considerations), the evaluations are faulty. As stated in Item 2 above, the travel forecasts, in turn, are faulty because they are based on faulty socio-economic forecasts.<br>8. Some potential impacts, including impacts on the arterial street system adjoining proposed interchanges, construction impacts, and the impacts of |
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| 360 (cont.) | | traveled levels increased by almost 2 percent between 2011 and 2012, and the 2012 daily vehicle miles traveled approached the 2007 prerecession peak. (*Source*: the Arizona Department of Transportation's Multimodal Planning Division's Highway Performance Monitoring System Data for calendar years 2012 and 2011).<br>Even if the trend of vehicle miles traveled "per capita" decreasing were to continue, the total vehicle miles traveled in the region would still increase along with increases in total population. |
| 361 | **Purpose and Need** | Analysis of the purpose and need for the proposed action followed National Environmental Policy Act and Federal Highway Administration implementing guidance on the subject matter and used state-of-the-practice analytical tools, as pointed out in Table 1-3, "Traffic Analysis Tools," on page 1-13 of the Draft Environmental Impact Statement. The results of the analysis determined that a transportation problem does exist and that problem will continue in the foreseeable future (see section, *Conclusions*, on page 1-21). As noted on page 3-1 in the section, *Reconfirm the Purpose and Need for the Proposed Action*, a continuous validation process was undertaken throughout the environmental impact statement process to ensure past conclusions in the environmental impact statement process remained valid.<br>The Draft Environmental Impact Statement—particularly in Chapter 1, *Purpose and Need*, and Chapter 3, *Alternatives*—thoroughly explains how the process of establishing a purpose and need for the proposed action followed nationally accepted guidance and policy. Examples of how the purpose and need analyses were appropriately applied include the:<br>· section, *Context of Purpose and Need in the EIS Process*, on page 1-1<br>· sidebar, "*A proposed action's purpose and documentation should:*", on page 1-1<br>· sidebar, "*How are MAG data used in the DEIS?*", on page 1-4<br>· sidebar, "*What is the MAG regional demand model?*", on page 1-5<br>· sidebar, "*How will the economic downturn affect growth rates?*", on page 1-11<br>· section, *Need Based on Regional Transportation Demand and Existing and Projected Transportation System Capacity Deficiencies*, beginning on page 1-13<br>· section, *Conclusions*, on page 1-21<br>· section, *Reconfirm the Purpose and Need for the Proposed Action*, on page 3-1<br>· section, *Responsiveness of the Proposed Freeway to Purpose and Need Criteria*, beginning on page 3-27<br>Figure 1-8, "Average Daily Traffic Volumes on Freeways and Arterial Streets (without the Proposed Action, 2010 and 2035," illustrates the demands placed on the transportation network in the region. Figure 1-12, "Met and Unmet Demand, 2010 and 2035," summarizes demand and capacity deficiencies associated with the identified transportation problem.<br>The reader is referred to Draft Environmental Impact Statement Chapter 3, *Alternatives*, and, specifically, the section, *Alternatives Development and Screening Process Conclusions*, beginning on page 3-26, noting "... a comprehensive set of alternatives including all modes was considered ... assurance that the screening process was an open process ... a logical, sequential, step-by-step process using data and expertise from multiple disciplines ..." to demonstrate all possibilities were considered. |
| 362 | **Purpose and Need** | The parameters for delineation of the Study Area are described in Chapter 1, *Purpose and Need*, as the area defining the transportation problem. As presented in the chapter, transportation models were used to determine where the characteristics of the transportation problem would diminish, and, generally, it is |

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that travel statistics such as trip length, VMT per person, and VMT per household have been steady over time in recent years, contradicting both the DEIS and the RTP.

4. As presented in the DEIS, the P&N defines the need as "completing the Regional Freeway System," "adding capacity to the regional freeway and arterial system," and "serving travel needs in the Southwest area." No compelling need specifically for the SMF is presented. The P&N statement in the DEIS is very general and is focused on the need to add freeway capacity but not focused on building the SMF. The problems identified that lead to the proposed action (not direct quotes) are:

    a. Accommodating population and employment growth in the Phoenix Metropolitan Area.
    b. Completing the Regional Freeway and Highway System, that was delineated about 30 years ago.
    c. Providing additional freeway capacity to reduce congestion in the Urban Core.
    d. Serving travel needs in the Southwest portion of the Metropolitan Area.

    The P&N in the DEIS did not address the compelling problems and needs in the Study Area that the SMF would be intended to alleviate. Specific evaluation criteria should have been developed to assess the effectiveness of each alternative to alleviate, wholly or partially, each of the problems in the Study Area. This lack of specificity in the P&N affects the identification of alternatives and the evaluation of alternatives.

5. Some reasonable and feasible alternatives were eliminated early in the screening process. There is no technical or scientific rationale or justification presented as to why the project Study Area comprises the precise area it does. The impression is that these boundaries were drawn for political and procedural reasons to comport with MAG's and ADOT's previous planning efforts, rather than to allow a comprehensive, objective NEPA assessment. Specifically, this Study Area appears configured so as to exclude freeway alternatives further south or west and, thus, to deliberately avoid evaluation of other "reasonable alternatives" to the Pecos Road alignment. Although outside of MAG jurisdiction, alternatives in Pinal and Pima Counties should have been given due consideration. The DEIS was not properly scoped.
6. The Description of the Proposed Action in the Summary Chapter fails to provide details essential for informed decision-making. The action is described generally as building a freeway in compliance with the RTP. (363)
7. Since the evaluation of alternatives is based on the travel forecasts (among other considerations), the evaluations are faulty. As stated in Item 2 above, the travel forecasts, in turn, are faulty because they are based on faulty socio-economic forecasts. (364)
8. Some potential impacts, including impacts on the arterial street system adjoining proposed interchanges, construction impacts, and the impacts of (365)

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| 362 (cont.) | | at these locations where the definition of the Study Area took shape. This effort was coordinated with stakeholder agencies, including the U.S. Environmental Protection Agency.<br>Alternatives considered in the Draft Environmental Impact Statement included many that were located outside of the Study Area. Examples include the Riggs Road Alternative (see page 3-9), the State Route 85/Interstate 8 Alternative (see page 3-9), the U.S. Route 60 Extension (see page 3-12), the Interstate 10 Spur (see page 3-12), and the Central Avenue Tunnel (see page 3-12). |
| 363 | **Purpose and Need** | As pointed out on page S-1, in the sidebar, "*What you will find in the Summary chapter,*" the text in the Summary is not the "final word," and readers are urged to turn to the main text when questions about Summary content arise. While proposed action is summarily defined on page 1-1 of the Draft Environmental Impact Statement as the "construction and operation of a major transportation facility," design specifics for each action alternative are found in text beginning on page 3-40 of the Final Environmental Impact Statement. Sufficient detail is provided to: ensure meaningful comparison and analyses of the alternatives in reference to operational characteristics, cost, and impacts; and to convey to sufficient information to reviewers of the characteristics of each alternative in accordance with 23 Code of Federal Regulations 771 Environmental Impact and Related Procedures or in the Federal Highway Administration Technical Advisory T 6640.8A Guidance for Preparing and Processing Environmental and Section 4(f) Documents.<br>It is clear, as pointed out in Chapter 3, *Alternatives*, that a beneficial outcome of the alternatives screening process—a "... logical, sequential, step-by-step process using data and expertise from multiple disciplines ... (page 3-27)"—was that the mode determined to be appropriate for addressing the identified transportation problem was a highway that, in turn, was consistent with local and regional plans (as supported by stakeholder jurisdictions). But nowhere in the Draft Environmental Impact Statement is reference made that the proposed action is needed to comply with the *Regional Transportation Plan*. The analysis of the proposed action's purpose and need would have ended the environmental impact statement process at that point if a need in the form of a transportation problem had not been identified, and this is disclosed in the Draft Environmental Impact Statement. |
| 364 | **Purpose and Need** | 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.<br>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. The purpose and need and analysis of alternatives were updated and reevaluated using these new socioeconomic projections and corresponding projections related to regional traffic. While new projections based on the 2010 Census showed a lower anticipated population and vehicle miles traveled in 2035 than the previous projections, the conclusions reached in the Draft Environmental Impact Statement were validated in the Final Environmental Impact Statement (see Chapter 3, *Alternatives*). The traffic analysis demonstrated that the proposed project is needed today and will continue to be needed into the future. |

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| | truck traffic are not addressed at all or are not addressed in detail sufficient for a DEIS for an Action Alternative (as opposed to a programmatic action such as the adoption of the RTP). |
| 366 | **9.** None of the Action Alternatives would alleviate the anticipated capacity deficiencies identified in the P&N. Despite the expenditure of about $3 billion to build the SMF and despite the displacement of many residences and business establishments, there would be capacity deficiencies at levels comparable to the No Action Alternative on freeways and arterials throughout the metropolitan area and on the SMF itself. While the levels of congestion may be slightly less, Level of Service E and F conditions would prevail at approximately the same levels and durations in 2035 with or without an Action Alternative. |
| 367 | **10.** Appropriate mitigation measures were not proposed to mitigate the impacts of the Action Alternatives. Assuming for discussion purposes that the Preliminarily Preferred Action Alternative is implemented, appropriate mitigation measures should have been in the EIS. Some appropriate mitigation measures would have included:<br>• Placement of truck weight limits on the SMF<br>• Restricting trucks carrying hazardous materials (hazmats) from using the SMF<br>• Upgrading the currently-designated CANAMEX Route via I-10/I-8/SR-85/I-10 to full freeway standards<br>• Development of an east-west truck route to by-pass the Phoenix metropolitan area<br>• Formulation and inclusion in the RTP of a plan for arterials in the Southwest area to help guide development patterns so that desirable options are not precluded |
| | **11.** Based on these traffic and circulation considerations, none of the Action Alternatives should be selected as the Preliminarily Preferred Alternative. |
| | A specific NEPA violation we found in the DEIS is that the route for the SMF has been predetermined practically since its inception. Even in the 1985 Maricopa Elections materials the "Southwest Loop" is shown with the Pecos Road and 59th Avenue alignments east and west. Since that time millions of dollars have been spent purchasing right-of-way along these alignments, yet nothing has been spent on any other alternative alignments, including the Loop 101 alignment recommended by the SMCAT (and rejected by MAG) and the 71st Avenue alignment. Both of these western alternatives are supposedly still being considered, but it is clear that they are not really considered alternatives. |
| | Additionally, in 1998, the tribal government of the Gila River Indian Community (GRIC) approved a route for the SMF along Riggs Road on tribal land when it adopted the Gila Borderlands Regional Planning Study (Arizona Republic, *1998 plan* |
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| 365 | **Traffic** | The proposed freeway would include improvements along arterial streets at interchange locations to facilitate the movement of traffic on, off, and across the freeway. The arterial street improvements are included within the right-of-way footprint used for the analysis of impacts. |
| 366 | **Traffic** | The traffic operational characteristics comparison between the action and No-Action alternatives is presented beginning on page 3-27 of the Final Environmental Impact Statement. The analysis shows that the action alternatives would:<br>· reduce overall traffic on the arterial street system (see Figures 3-12 and 3-13)<br>· optimize travel on the region's freeway system (see Figure 3-12)<br>· reduce the capacity deficiency to levels better than experienced today (see Figures 1-12 and 3-14)<br>· reduce the duration of level of service E or F conditions in key areas of the region's freeway system (see Figure 3-15)<br>· improve travel times on trips within the Study Area and across the region (see Figure 3-17 and Table 3-8)<br>· provide improved regional mobility for areas projected to experience growth in the next 25 years (see Figures 1-7 and 3-18)<br>When all of this is considered in the realm of travel time savings for motorists in the region, the user benefits approximate $200 million per year (see Table 4-26). |
| 367 | **Hazardous Materials** | The obligation of the Arizona Department of Transportation and Federal Highway Administration, as the federal lead agency, in accordance with the National Environmental Policy Act is to assess if the proposed action and its alternatives would lead to significant adverse environmental impacts, disclose those impacts and identify mitigation to reduce the impact below a level of significance (and if such mitigation is unavailable, disclose that such an impact would occur but not be mitigated). Sufficient mitigation under these terms is presented throughout Chapters 3, 4 and 5 of the Draft Environmental Impact Statement. In terms of suggested mitigation examples in the comment, consider:<br>· As it relates to transport of hazardous materials, 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, if implemented, is expected to operate under the same rules as other similar facilities in the state; truck traffic would be expected to be permissible (see text box on page 4-157 of the Final Environmental Impact Statement).<br>· Improvements to State Route 85 are included in the *Regional Transportation Plan*, and the plan is to continue to improve this corridor until it is completely access-controlled with a freeway section north of the Gila River.<br>· The *Regional Transportation Plan* is not the primary source of funding for expansion of the arterial street system. Funding for the arterial street system generally comes from the local jurisdiction or through impact fees for development. It is anticipated that the arterial street network within the Study Area will be expanded in this same manner. The Maricopa Association of Governments regional travel demand model includes assumptions related to arterial street expansion based on local jurisdictions' general planning. In the case of the Study Area, it is assumed that most of the arterial street network would be built out by 2035. |

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| | truck traffic are not addressed at all or are not addressed in detail sufficient for a DEIS for an Action Alternative (as opposed to a programmatic action such as the adoption of the RTP).<br>9. None of the Action Alternatives would alleviate the anticipated capacity deficiencies identified in the P&N. Despite the expenditure of about $3 billion to build the SMF and despite the displacement of many residences and business establishments, there would be capacity deficiencies at levels comparable to the No Action Alternative on freeways and arterials throughout the metropolitan area and on the SMF itself. While the levels of congestion may be slightly less, Level of Service E and F conditions would prevail at approximately the same levels and durations in 2035 with or without an Action Alternative.<br>10. Appropriate mitigation measures were not proposed to mitigate the impacts of the Action Alternatives. Assuming for discussion purposes that the Preliminarily Preferred Action Alternative is implemented, appropriate mitigation measures should have been in the EIS. Some appropriate mitigation measures would have included:<br>• Placement of truck weight limits on the SMF<br>• Restricting trucks carrying hazardous materials (hazmats) from using the SMF<br>• Upgrading the currently-designated CANAMEX Route via I-10/I-8/SR-85/I-10 to full freeway standards<br>• Development of an east-west truck route to by-pass the Phoenix metropolitan area<br>• Formulation and inclusion in the RTP of a plan for arterials in the Southwest area to help guide development patterns so that desirable options are not precluded |
| 368 | 11. Based on these traffic and circulation considerations, none of the Action Alternatives should be selected as the Preliminarily Preferred Alternative. |
| 369 | A specific NEPA violation we found in the DEIS is that the route for the SMF has been predetermined practically since its inception. Even in the 1985 Maricopa Elections materials the "Southwest Loop" is shown with the Pecos Road and 59th Avenue alignments east and west. Since that time millions of dollars have been spent purchasing right-of-way along these alignments, yet nothing has been spent on any other alternative alignments, including the Loop 101 alignment recommended by the SMCAT (and rejected by MAG) and the 71st Avenue alignment. Both of these western alternatives are supposedly still being considered, but it is clear that they are not really considered alternatives.<br>Additionally, in 1998, the tribal government of the Gila River Indian Community (GRIC) approved a route for the SMF along Riggs Road on tribal land when it adopted the Gila Borderlands Regional Planning Study (Arizona Republic, *1998 plan* |
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| 368 | **Alternatives** | The Arizona Department of Transportation, with concurrence from the Federal Highway Administration, has determined that the proposed freeway (as made up by the W59 and E1 Alternatives) is the preferred solution to the transportation problem identified in the Draft Environmental Impact Statement. However, all alternatives discussed in the Draft and Final Environmental Impact Statement, including the No-Action Alternative, are still under consideration. The selection of an alternative will be made in a record of decision issued by the Federal Highway Administration for the proposed project.<br>All of the alternatives were subjected to a thorough evaluation using a multidisciplinary set of criteria in accordance with National Environmental Policy Act and federal Highway Administration guidance. |
| 369 | **Alternatives** | The comment suggests the environmental impact statement process was biased by a history of property acquisitions within the Study Area. More specifically, properties falling within the limits of the Preferred Alternative, as identified in the Final Environmental Impact Statement, were targeted for acquisition.<br>As noted in text on page 3-54 of the Final Environmental Impact Statement, the Arizona Department of Transportation began acquiring land for the original alignment in 1988. Between 1988 and 2001, the Arizona Department of Transportation acquired approximately 293 acres. Most of this land (258 acres) is located in the Eastern Section along Pecos Road. In 2006, the Arizona Department of Transportation began protective and hardship land acquisition in the alignment right-of-way footprint for the W59 and E1 Alternatives. Between 2006 and October 2013, the Arizona Department of Transportation purchased 326 acres (303 in the Western Section and 23 in the Eastern Section).<br>The process for hardship and advanced acquisitions is explained in text on page 4-50 of the Final Environmental Impact Statement.<br>The comment infers that by taking such action, the objective equal consideration of the alternatives studied in detail in the Draft and Final Environmental Impact Statements is tainted. Advanced acquisitions in parallel to a National Environmental Policy Act environmental determination process is not unprecedented and is common practice. In this case, property acquisitions by the Arizona Department of Transportation for purposes of implementing the proposed action are done at risk as communicated to the agency by the Federal Highway Administration. If another action alternative were to be ultimately selected, the agency would likely have to place the acquired properties on the market for sale and purchase. The Arizona Department of Transportation attempts to balance the risk against its mission of timely delivery of transportation infrastructure to the driving public. Further, Federal Highway Administration regulations do not allow the ownership of right-of-way to be a factor in the decision regarding the selection of an alternative.<br>While the South Mountain Citizens Advisory Team recommended the W101 Alternative, all stakeholders' input was accounted for—including regional leaders, municipalities, members of the public, and members of the South Mountain Citizens Advisory Team—before identifying the W59 Alternative as the Preferred Alternative (see Draft Environmental Impact Statement pages 3-65 and 3-68).<br>Both Riggs Road and Queen Creek Road Alternatives were considered (see Figure 3-5 on page 3-7 of the Final Environmental Impact Statement). While these alternatives might serve regional mobility needs, particularly of those living in the Maricopa area, meeting this travel demand would not address specific planning goals for an |

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| 370 | *for South Mountain Freeway passed over*, March 25, 2013). Three years later, the state moved on with its SMF plan, without considering the GRIC plan. At another time, the GRIC proposed a Queen Creek Road alignment (Arizona Republic, *Tribe Against South Mountain Freeway on land – for now*, January 20, 2010). This proposal was also rejected by ADOT.<br><br>Throughout the DEIS, and throughout the time leading up to the publication of the DEIS, the inappropriate restrictions on the scoping of the study precluded the consideration of viable alternatives to the SMF. With the apparent need for a freeway that could handle considerable truck traffic, including hazmats, the natural consideration would have been the route that is currently the "Phoenix truck bypass" – SR-85 from I-10 at Buckeye to I-8 at Gila Bend to I-10 at Casa Grande. This route could become the I-10 and provide a bypass for all pass-through traffic, including the CANAMEX traffic. With appropriate access provided from the commercial area around 51st Avenue, it could also provide a main route for O&D traffic. It should at least be considered as an alternative. The planned route for I-11, looping southwest from I-10 west of downtown Phoenix, through Rainbow Valley, then rejoining I-10 near Casa Grande, should also be a considered alternative. It could accommodate all the truck traffic bypassing Phoenix with a shorter route than the current truck bypass. If the primary reason for wanting the SMF is to accommodate O&D truck traffic (although this is not stated in the DEIS, it is easy to come to this conclusion from what is stated), another alternative that should be considered is to create a freeway spur from I-10 West and/or from the real truck bypass into the commercial area around 51st Avenue.<br><br>The point is that viable alternatives to the SMF exist, but the SMF is not a viable alternative itself. No amount of attempting to exclude alternatives through inappropriate scoping will make the SMF viable. If the need exists for accommodating truck traffic, several alternatives are available for consideration. ADOT should start over, state the real P&N, and produce a reasonable DEIS. This DEIS is fatally flawed, at least in part because the true P&N are disguised to try to force a non-viable solution.<br><br>**Air Quality**<br><br>The modeling of air pollution impacts in the DEIS do not include the issues involved with truck traffic. There are 3 specific "classes" of truck traffic that should have been considered:<br><br>1. Pass-through traffic that now uses the official truck bypass<br>2. CANAMEX traffic<br>3. Origination and Destination (O&D) traffic to/from the commercial area around 51st Avenue<br><br>Many years ago, the idea of a truck bypass came up because there were chronic issues about air quality in the Phoenix metro area. The air quality was so bad and for<br><br>6 |

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| 369 (cont.) | | integrated regional transportation network. The *Regional Transportation Plan* identifies the proposed South Mountain Freeway as a critical link in the Regional Freeway and Highway System. These alternatives would not complete the Phoenix metropolitan area's loop system as part of State Route 202L, thereby causing substantial out-of-direction travel for motorists. Therefore, the Riggs Road and Queen Creek Road Alternatives would not meet the project's purpose and need criteria and were eliminated from further study. |
| 370 | **Trucks** | The environmental impact statement process was undertaken in accordance with National Environmental Policy Act and related legislation. As explained throughout these responses, Chapter 1, *Purpose and Need*, of the Draft Environmental Impact Statement does not have a truck bypass as a goal of the proposed action. These comments continuously and erroneously suggest that the only purpose of the proposed action is to serve truck traffic; however, none of the traffic analysis presented in the Draft and Final Environmental Impact Statements or elsewhere supports this contention.<br><br>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. The Maricopa Association of Governments travel demand model projects trucks will represent approximately 10 percent of the total traffic on the proposed freeway (this would equate to approximately 15,000 trucks per day based on an average total daily volume of 150,000 vehicles). See Figure 3-18, on page 3-36 of the Draft Environmental Impact Statement, for information related to use of the freeway.<br><br>Other existing facilities (such as State Route 85 and Interstate 8) and future facilities (such as Interstate 11) serve a specific purpose of providing a truck route. These facilities would not address the need identified for the proposed action. Therefore, they are not appropriate responses and were eliminated from consideration.<br><br>The signed truck bypass for the Phoenix metropolitan area is today and will continue to be State Route 85 and Interstate 8. The Maricopa Association of Governments regional travel demand model projects that truck traffic will represent approximately 10 percent of the total traffic on the proposed action. The reader is referred to page 3-64 of the Draft Environmental Impact Statement that elaborates on the relation of truck traffic and the proposed action.<br><br>According to 23 Code of Federal Regulations §771.111(f)," the action evaluated in the environmental impact statement must connect logical termini and be of sufficient length to address environmental matters on a broad scope...". The proposed action should satisfy the project need and should be considered in the context of the local area socioeconomics and topography, the future travel demand, and other infrastructure improvements in the area. A partial freeway from Interstate 10 (Papago Freeway) to Laveen Village is not feasible because it would not meet the proposed freeway's identified purpose and need. |

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| | *for South Mountain Freeway passed over*, March 25, 2013). Three years later, the state moved on with its SMF plan, without considering the GRIC plan. At another time, the GRIC proposed a Queen Creek Road alignment (Arizona Republic, *Tribe Against South Mountain Freeway on land – for now*, January 20, 2010). This proposal was also rejected by ADOT.<br><br>Throughout the DEIS, and throughout the time leading up to the publication of the DEIS, the inappropriate restrictions on the scoping of the study precluded the consideration of viable alternatives to the SMF. With the apparent need for a freeway that could handle considerable truck traffic, including hazmats, the natural consideration would have been the route that is currently the "Phoenix truck bypass" – SR-85 from I-10 at Buckeye to I-8 at Gila Bend to I-10 at Casa Grande. This route could become the I-10 and provide a bypass for all pass-through traffic, including the CANAMEX traffic. With appropriate access provided from the commercial area around 51st Avenue, it could also provide a main route for O&D traffic. It should at least be considered as an alternative. The planned route for I-11, looping southwest from I-10 west of downtown Phoenix, through Rainbow Valley, then rejoining I-10 near Casa Grande, should also be a considered alternative. It could accommodate all the truck traffic bypassing Phoenix with a shorter route than the current truck bypass. If the primary reason for wanting the SMF is to accommodate O&D truck traffic (although this is not stated in the DEIS, it is easy to come to this conclusion from what is stated), another alternative that should be considered is to create a freeway spur from I-10 West and/or from the real truck bypass into the commercial area around 51st Avenue. |
| 371 | The point is that viable alternatives to the SMF exist, but the SMF is not a viable alternative itself. No amount of attempting to exclude alternatives through inappropriate scoping will make the SMF viable. If the need exists for accommodating truck traffic, several alternatives are available for consideration. ADOT should start over, state the real P&N, and produce a reasonable DEIS. This DEIS is fatally flawed, at least in part because the true P&N are disguised to try to force a non-viable solution. |
| 372 | **Air Quality**<br><br>The modeling of air pollution impacts in the DEIS do not include the issues involved with truck traffic. There are 3 specific "classes" of truck traffic that should have been considered:<br><br>1. Pass-through traffic that now uses the official truck bypass<br>2. CANAMEX traffic<br>3. Origination and Destination (O&D) traffic to/from the commercial area around 51st Avenue<br><br>Many years ago, the idea of a truck bypass came up because there were chronic issues about air quality in the Phoenix metro area. The air quality was so bad and for |



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| 370 (cont.) | | For a true understanding of origins and destinations of all vehicles, including trucks, that would use the proposed freeway, please refer to Figure 3-18 on page 3-36 of the Draft Environmental Impact Statement.<br><br>Public and agency scoping is discussed in Chapter 6 of the Draft Environmental Impact Statement. As discussed in Chapter 6, these scoping efforts were extensive. |
| 371 | **Purpose and Need** | The Draft Environmental Impact Statement and the environmental impact statement process it documents represent a robust, comprehensive, objective, defensible implementation of National Environmental Policy Act guidance, intent, and spirit. The Draft Environmental Impact Statement—particularly in Chapter 1, *Purpose and Need*, and Chapter 3—*Alternatives*, thoroughly explains how the process of establishing a purpose and need for the proposed action followed nationally accepted guidance and policy. Examples of how the purpose and need analyses were appropriately applied include the:<br>· section, *Context of Purpose and Need in the EIS Process*, on page 1-1<br>· sidebar, "*A proposed action's purpose and documentation should:*", on page 1-1<br>· sidebar, "*How are MAG data used in the DEIS?*", on page 1-4<br>· sidebar, "*What is the MAG regional demand model?*", on page 1-5<br>· sidebar, "*How will the economic downturn affect growth rates?*", on page 1-11<br>· section, *Need Based on Regional Transportation Demand and Existing and Projected Transportation System Capacity Deficiencies*, beginning on page 1-13<br>· section, *Conclusions*, on page 1-21<br>· section, *Reconfirm the Purpose and Need for the Proposed Action*, on page 3-1<br>· section, *Responsiveness of the Proposed Freeway to Purpose and Need Criteria*, beginning on page 3-27<br><br>In short, assessment of the purpose and need for the proposed action and consideration of alternatives were undertaken in an objective, defensible manner in accordance with National Environmental Policy Act guidance and intent; past South Mountain Freeway-related determinations were accounted for as only criteria in a multitiered, multidisciplinary screening process (see the sections, *Conclusions*, on pages 1-21 and 3-70. Table 3-9, "Implementation of the Proposed Freeway as the Appropriate Modal Alternative to Satisfy Purpose and need Criteria, 2035," further presents information supporting the conclusion.<br><br>No mention is made of the purpose and need of the proposed action being to serve as a truck bypass. Information pertaining to truck routes in the region is presented on page 3-64 of the Draft Environmental Impact Statement, in the text box, "*Trucking in the MAG Region*."<br><br>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. The purpose and need and analysis of alternatives were updated and reevaluated using these new socioeconomic projections and corresponding projections related to regional traffic. While new projections based on the 2010 Census showed a lower anticipated population and vehicle miles traveled in 2035 than the previous projections, the conclusions reached in the Draft Environmental Impact Statement were validated in the Final Environmental Impact Statement (see Chapter 3, *Alternatives*). The traffic analysis demonstrated that the proposed project is needed today and will continue to be needed into the future. |

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*for South Mountain Freeway passed over*, March 25, 2013). Three years later, the state moved on with its SMF plan, without considering the GRIC plan. At another time, the GRIC proposed a Queen Creek Road alignment (Arizona Republic, *Tribe Against South Mountain Freeway on land – for now*, January 20, 2010). This proposal was also rejected by ADOT.

Throughout the DEIS, and throughout the time leading up to the publication of the DEIS, the inappropriate restrictions on the scoping of the study precluded the consideration of viable alternatives to the SMF. With the apparent need for a freeway that could handle considerable truck traffic, including hazmats, the natural consideration would have been the route that is currently the "Phoenix truck bypass" – SR-85 from I-10 at Buckeye to I-8 at Gila Bend to I-10 at Casa Grande. This route could become the I-10 and provide a bypass for all pass-through traffic, including the CANAMEX traffic. With appropriate access provided from the commercial area around 51st Avenue, it could also provide a main route for O&D traffic. It should at least be considered as an alternative. The planned route for I-11, looping southwest from I-10 west of downtown Phoenix, through Rainbow Valley, then rejoining I-10 near Casa Grande, should also be a considered alternative. It could accommodate all the truck traffic bypassing Phoenix with a shorter route than the current truck bypass. If the primary reason for wanting the SMF is to accommodate O&D truck traffic (although this is not stated in the DEIS, it is easy to come to this conclusion from what is stated), another alternative that should be considered is to create a freeway spur from I-10 West and/or from the real truck bypass into the commercial area around 51st Avenue.

The point is that viable alternatives to the SMF exist, but the SMF is not a viable alternative itself. No amount of attempting to exclude alternatives through inappropriate scoping will make the SMF viable. If the need exists for accommodating truck traffic, several alternatives are available for consideration. ADOT should start over, state the real P&N, and produce a reasonable DEIS. This DEIS is fatally flawed, at least in part because the true P&N are disguised to try to force a non-viable solution.

**Air Quality**

The modeling of air pollution impacts in the DEIS do not include the issues involved with truck traffic. There are 3 specific "classes" of truck traffic that should have been considered:

1. Pass-through traffic that now uses the official truck bypass
2. CANAMEX traffic
3. Origination and Destination (O&D) traffic to/from the commercial area around 51st Avenue

373 Many years ago, the idea of a truck bypass came up because there were chronic issues about air quality in the Phoenix metro area. The air quality was so bad and for

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| 372 | **Air Quality** | The air quality assessment for impacts from carbon monoxide followed the U.S. Environmental Protection Agency guidelines in *Guideline for Modeling Carbon Monoxide from Roadway Intersections* (A-OAQPS, 1992). Inputs to the model were based on U.S. Environmental Protection Agency-recommended values or were selected to provide a conservative estimate of impacts. Modeling methodology and results were reviewed by the Federal Highway Administration, Arizona Department of Transportation, and Maricopa Association of Governments.<br>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. The Maricopa Association of Governments travel demand model projects trucks will represent approximately 10 percent of the total traffic on the proposed freeway (this would equate to approximately 15,000 trucks per day based on an average total daily volume of 150,000 vehicles). See Figure 3-18, on page 3-36 of the Draft Environmental Impact Statement, for information related to use of the freeway. The air quality analyses considered the full vehicle fleet, including diesel trucks, as discussed above (see Final Environmental Impact Statement page 4-68). |
| 373 | **Trucks** | The 1995 Congressional federal definition states:<br>"In the State of Arizona, the CANAMEX Corridor shall generally follow – (i) I-19 from Nogales to Tucson; (ii) I-10 from Tucson to Phoenix; and (iii) United States Route 60 in the vicinity of Phoenix to the Nevada Border." (Source: <canamex.org/canamex/federal-definition>) The definition was intentionally left broad so that local, regional, and state agencies could further define the specific routes for the corridor.<br>In April 2001, the Maricopa Association of Governments Regional Council formally adopted the route depicted in the map on page 3-64 as the CANAMEX Corridor within Maricopa County. As noted on page 3-64 of the Draft Environmental Impact Statement, in the Maricopa County area the CANAMEX Corridor is to follow Interstate 10 from Tucson to Interstate 8 near Casa Grande, Interstate 8 west to State Route 85 near Gila Bend, State Route 85 north to Interstate 10 northwest of Buckeye, Interstate 10 west to Wickenburg Road, Wickenburg Road to Vulture Mine Road west of Wickenburg, and then connect with the planned U.S. Route 93/U.S. Route 60 Wickenburg Bypass. |

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| | so long that public policy makers suggested designating a bypass for truck traffic around the urban core as one of the strategies to reduce particulate matter from truck exhaust in urban Maricopa County. The designated truck bypass is from I-10 at Buckeye to I-8 at Gila Bend to I-10 at Casa Grande. ADOT says this bypass is also the designated route of the CANAMEX Highway, although the CANAMEX web site contradicts this assertion, saying I-10 is the designated CANAMEX route. If the SMF were built, the bypass route, which has few amenities, would be a substantially longer route, about 55-60 miles longer than the route using the SMF. There is no law that would force trucks to use the longer route, so it is entirely likely that most of these trucks would come through Phoenix, negating the whole bypass strategy, and negating a public policy decision. But the reversal of this public policy decision is never mentioned in the DEIS. |
| 374 | The DEIS does not consider the additional air pollution from truck traffic from Mexico. The DEIS briefly mentions the issue, but it claims it has no way to know what impact this would be. This is not true. We know exactly the number of trucks arriving from Mexico and their destinations in the US, so this is data that is available for the DEIS. It is also absurd to dismiss this issue by claiming the CANAMEX traffic would use the truck bypass. Since it is likely that at least most of the CANAMEX traffic would use the SMF, this issue should have been studied. |
| | Trucks originating in Mexico will be fueled with diesel that doesn't meet the CARB diesel standards adopted by Arizona over a decade ago. In Mexico, there is no regulation about the sulfur in diesel fuel. In Arizona, the law was changed to allow only diesel fuel to be sold that has had 98% of the sulfur removed. This was another part of the strategy to bring Maricopa County into compliance with the particulate matter standards required by the Clean Air Act (CAA). There was extensive modeling of the effect of adopting the CARB diesel standards and a discussion of this in the Arizona legislature, where it passed, so the data is in government hands. |
| 375 | The DEIS has no analysis of the current or enhanced increase in freight volume resulting from the port activity in Guyamas and Puerto Colonet and the Union Pacific rail efforts moving that freight from those ports into Tucson and then north to Phoenix. Also there is the expectation of a new Union Pacific rail yard at Picacho Peak, which would handle tens of thousands of containers originating in California and Tucson ports. This additional planned container traffic would result in a significant increase in freight flows to Phoenix, specifically to the hubs along 51st Avenue. |
| | Chapter 3 describes freight and trucks as pass through, but that is misleading. The freight enters Phoenix and is deposited, then is "exchanged" for loads heading in the opposite direction. So even though 70% of the freight passes through Phoenix, it is O&D traffic that terminates in Phoenix as a transfer point. |
| | There is also the issue of the 51st Avenue tank farm and the tanker truck traffic that the SMF would get as a result of a new shortcut for these trucks. Expectations for an |
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| 374 | **Trucks** | 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, if implemented, is expected to operate under the same rules as other similar facilities in the state; truck traffic would be expected to be permissible (see text box on page 4-157 of the Final Environmental Impact Statement).<br>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>).<br>Petróleos Mexicanos (better known as Pemex), the Mexican state-owned petroleum company, has guaranteed 15 parts per million in its sulfur diesel fuel in the border region (see <http://transportpolicy.net/index.php?title=Mexico:_Fuels:_Diesel_and_Gasoline>).<br>As explained on pages 4-69 and 4-77 of the Draft and Final Environmental Impact Statements, respectively, the emissions analysis conducted for the project shows that future mobile source air toxics emissions will be lower than current levels. This analysis included projected truck traffic. |
| 375 | **Trucks** | Like other "loop" freeways in the Phoenix metropolitan area, the proposed 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 vehicles on the proposed freeway would be automobiles. The Maricopa Association of Governments regional travel demand model projects that trucks would represent approximately 10 percent of the total traffic on the proposed action, similar to what is currently experienced on other regional freeways such as Interstate 10, State Route 101L, and U.S. Route 60. The road network in the Maricopa Association of Governments travel demand model includes the Interstate 8 and State Route 85 corridor. So, while the roads are not in the Study Area for the proposed action, traffic and trip distributions along the corridor are included in the traffic analysis for the proposed action. Any traffic, including trucks, that would shift from the Interstate 8 and State Route 85 corridor to the proposed action would be included in the vehicle mix considered in the analysis.<br>The disclosure of the air quality consequences of the proposed action, beginning on page 4-65 of the Draft Environmental Impact Statement, include projected truck traffic in the analysis.<br>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. The air quality analyses were updated using the updated projections related to regional traffic (see section beginning on page 4-68 of the Final Environmental Impact Statement). No substantial differences between the conclusions of the Draft and Final Environmental Impact Statements resulted from this update. |

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| 376 | so long that public policy makers suggested designating a bypass for truck traffic around the urban core as one of the strategies to reduce particulate matter from truck exhaust in urban Maricopa County. The designated truck bypass is from I-10 at Buckeye to I-8 at Gila Bend to I-10 at Casa Grande. ADOT says this bypass is also the designated route of the CANAMEX Highway, although the CANAMEX web site contradicts this assertion, saying I-10 is the designated CANAMEX route. If the SMF were built, the bypass route, which has few amenities, would be a substantially longer route, about 55-60 miles longer than the route using the SMF. There is no law that would force trucks to use the longer route, so it is entirely likely that most of these trucks would come through Phoenix, negating the whole bypass strategy, and negating a public policy decision. But the reversal of this public policy decision is never mentioned in the DEIS.<br><br>The DEIS does not consider the additional air pollution from truck traffic from Mexico. The DEIS briefly mentions the issue, but it claims it has no way to know what impact this would be. This is not true. We know exactly the number of trucks arriving from Mexico and their destinations in the US, so this is data that is available for the DEIS. It is also absurd to dismiss this issue by claiming the CANAMEX traffic would use the truck bypass. Since it is likely that at least most of the CANAMEX traffic would use the SMF, this issue should have been studied.<br><br>Trucks originating in Mexico will be fueled with diesel that doesn't meet the CARB diesel standards adopted by Arizona over a decade ago. In Mexico, there is no regulation about the sulfur in diesel fuel. In Arizona, the law was changed to allow only diesel fuel to be sold that has had 98% of the sulfur removed. This was another part of the strategy to bring Maricopa County into compliance with the particulate matter standards required by the Clean Air Act (CAA). There was extensive modeling of the effect of adopting the CARB diesel standards and a discussion of this in the Arizona legislature, where it passed, so the data is in government hands.<br><br>The DEIS has no analysis of the current or enhanced increase in freight volume resulting from the port activity in Guyamas and Puerto Colonet and the Union Pacific rail efforts moving that freight from those ports into Tucson and then north to Phoenix. Also there is the expectation of a new Union Pacific rail yard at Picacho Peak, which would handle tens of thousands of containers originating in California and Tucson ports. This additional planned container traffic would result in a significant increase in freight flows to Phoenix, specifically to the hubs along 51st Avenue.<br><br>Chapter 3 describes freight and trucks as pass through, but that is misleading. The freight enters Phoenix and is deposited, then is "exchanged" for loads heading in the opposite direction. So even though 70% of the freight passes through Phoenix, it is O&D traffic that terminates in Phoenix as a transfer point.<br><br>There is also the issue of the 51st Avenue tank farm and the tanker truck traffic that the SMF would get as a result of a new shortcut for these trucks. Expectations for an<br><br>7 |

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| 376 | **Purpose and Need** | Some trucks would use the proposed freeway to avoid Interstate 10 through downtown Phoenix, but this is not the primary purpose 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.<br><br>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 action, 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 Draft Environmental Impact Statement, trucking destinations in the Phoenix metropolitan area would still prompt truck drivers to enter congested areas. Choosing to travel on the proposed freeway versus Interstate 10 would not produce substantial travel-time benefits. Therefore, 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. |

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| 377 | increase from the transmix pipeline, which would result in an increase in tanker truck traffic, should have been considered in a truck analysis.<br><br>If all this additional pollution had been honestly quantified and factored in, it would likely have shown a huge net increase in air pollution from the SMF, and associated increases in asthma, heart disease, premature death, and other adverse health impacts.<br><br>In 2005, there was an extensive air monitoring of certain toxic chemicals (air toxics) conducted by EPA and ADEQ in a joint effort named the Joint Air Toxics Assessment Program (JATAP). The monitoring sites included a site near St. Johns on the GRIC, and some in west Phoenix and South Phoenix. The JATAP monitoring results were reported in 2006, during a time the data for the DEIS was being gathered, and it found levels of certain toxic chemicals associated with vehicular emissions were above the standard of a one in a million chance of cancer in a lifetime of exposure in the west Phoenix, south Phoenix, and GRIC sites. The JATAP monitoring found in the high end of the monitoring levels, formaldehyde at 34 times this standard; benzene at 8 times this standard, 1,3 butadiene at 7.5 times this standard, and acetaldehyde at 3.4 times this standard. And, remember, citizens are being subjected to all of these carcinogens, not just one. Some of these chemicals are attributed to "mobile sources," or vehicular traffic burning hydrocarbons. Clearly, adding more vehicular traffic emissions by building a freeway where there had not been one would add to this toxic burden.<br><br>The JATAP results are not included in the DEIS, but instead there is a mention of the uncertainty of the risk from these air toxics standards, which is not true. The cancer risk standards have been promulgated and published by EPA after extensive research and study, and they are well known.<br><br>The portion of Maricopa County that is characterized as the Phoenix metro area has had problems for decades meeting the air quality standards for particulate matter (PM) and other criteria pollutants. Ozone levels are too high in the East Valley and Fountain Hills, for example. There have been several exceedances of the standards for PM set by EPA under the authorities given the agency by the Clean Air Act (CAA). The problem has been so bad over the years that every possible delay and postponement allowed under the CAA to come up with a plan to meet regulatory levels of particulate matter have now been exhausted. So, currently, EPA is examining sanctions that include blocking a billion dollars in highway funds. The Arizona Department of Environmental Quality (ADEQ) has tried to explain away the several exceedances of the PM standards in the last year or so by blaming it on dust storms and weather-related problems. But these were not all related to weather.<br><br>Almost every one of these PM exceedances have been detected at the air quality monitor at 43rd Avenue and Broadway Road. The placement of a freeway about a mile upwind from a monitor that has had all these high levels seems foolish and short sighted. And the impacts and risks of this were not examined in the DEIS. Nor<br><br>8 |

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| 377 | **Air Quality, Health Risk Assessment** | The carbon monoxide analysis was updated in the Final Environmental Impact Statement. Although a qualitative analysis of particulate matter ($PM_{10}$) was presented in the Draft Environmental Impact Statement, a quantitative project-level particulate matter ($PM_{10}$) 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. 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.<br><br>The emission modeling developed for the proposed action showed 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. 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 (see discussion beginning on page 4-77 of the Final Environmental Impact Statement).<br><br>**The Role of Health Risk Assessment in a National Environmental Policy Act Context**<br><br>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.<br><br>Summary information about the findings of the Joint Air Toxics Assessment Project study is provided as background information in the Draft and Final Environmental Impact Statements, but the study itself is not relevant to the type of analysis done pursuant to the Federal Highway Administration's mobile source air toxics guidance, which is an emissions analysis. Monitored ambient concentrations of mobile source air toxics (the focus of the Joint Air Toxics Assessment Project) do not inform this type of analysis. While monitoring data can be useful for defining |

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| **377 (cont.)** | | current conditions in the affected environment (to the extent that the monitoring data are current),they don't tell us anything about future conditions, or the impacts of the project itself, which is why an emissions analysis was performed. The mobile source air toxic analysis presented 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 Area for 2025 and 2035. This approach was used because the inventory estimate accounts for changes in traffic and emissions on all roadways affected by a proposed project, and would, therefore, be a more reliable predictor of changes in exposure to mobile source air toxics.<br>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:<br>*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.*<br>*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.*<br>*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.*<br>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 |

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| **377 (cont.)** | | 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.<br>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).<br>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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| 377 (cont.) | | As described 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.<br>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).<br>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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| 377 (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.<br>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. |

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| | increase from the transmix pipeline, which would result in an increase in tanker truck traffic, should have been considered in a truck analysis.<br><br>If all this additional pollution had been honestly quantified and factored in, it would likely have shown a huge net increase in air pollution from the SMF, and associated increases in asthma, heart disease, premature death, and other adverse health impacts.<br><br>In 2005, there was an extensive air monitoring of certain toxic chemicals (air toxics) conducted by EPA and ADEQ in a joint effort named the Joint Air Toxics Assessment Program (JATAP). The monitoring sites included a site near St. Johns on the GRIC, and some in west Phoenix and South Phoenix. The JATAP monitoring results were reported in 2006, during a time the data for the DEIS was being gathered, and it found levels of certain toxic chemicals associated with vehicular emissions were above the standard of a one in a million chance of cancer in a lifetime of exposure in the west Phoenix, south Phoenix, and GRIC sites. The JATAP monitoring found in the high end of the monitoring levels, formaldehyde at 34 times this standard; benzene at 8 times this standard, 1,3 butadiene at 7.5 times this standard, and acetaldehyde at 3.4 times this standard. And, remember, citizens are being subjected to all of these carcinogens, not just one. Some of these chemicals are attributed to "mobile sources," or vehicular traffic burning hydrocarbons. Clearly, adding more vehicular traffic emissions by building a freeway where there had not been one would add to this toxic burden.<br><br>The JATAP results are not included in the DEIS, but instead there is a mention of the uncertainty of the risk from these air toxics standards, which is not true. The cancer risk standards have been promulgated and published by EPA after extensive research and study, and they are well known. |
| 378 | The portion of Maricopa County that is characterized as the Phoenix metro area has had problems for decades meeting the air quality standards for particulate matter (PM) and other criteria pollutants. Ozone levels are too high in the East Valley and Fountain Hills, for example. There have been several exceedances of the standards for PM set by EPA under the authorities given the agency by the Clean Air Act (CAA). The problem has been so bad over the years that every possible delay and postponement allowed under the CAA to come up with a plan to meet regulatory levels of particulate matter have now been exhausted. So, currently, EPA is examining sanctions that include blocking a billion dollars in highway funds. The Arizona Department of Environmental Quality (ADEQ) has tried to explain away the several exceedances of the PM standards in the last year or so by blaming it on dust storms and weather-related problems. But these were not all related to weather.<br><br>Almost every one of these PM exceedances have been detected at the air quality monitor at 43rd Avenue and Broadway Road. The placement of a freeway about a mile upwind from a monitor that has had all these high levels seems foolish and short sighted. And the impacts and risks of this were not examined in the DEIS. Nor |
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| 378 | **Air Quality** | The Draft Environmental Impact Statement addresses the history of air quality in the region (see text beginning on page 4-68 of the Final Environmental Impact Statement). The 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 to protect the public health. Air quality in the Phoenix metropolitan area has improved over time; Phoenix was redesignated to attainment/maintenance for carbon monoxide in 2005, and the U.S. Environmental Protection Agency recently determined that Phoenix has attained the particulate matter ($PM_{10}$) standard. These improvements are largely associated with cleaner fuels and lower-emission vehicles along with local controls on fugitive dust. Future emissions would also be reduced by the use of cleaner burning fuels, technological advances in automotive design (including the greater use of alternative fuel vehicles), reformulated gasoline, gas can standards, stricter enforcement of emission standards during inspections, heavy-duty diesel engine and on-highway diesel sulfur control programs, dust control programs, and others.<br><br>The air quality assessment for the proposed freeway analyzed impacts from carbon monoxide and particulate matter ($PM_{10}$) and followed U.S. Environmental Protection Agency guidelines. 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 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.<br><br>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.<br><br>Fugitive dust and mobile source emissions from construction of the proposed freeway would be controlled by requiring the contractor to comply with the dust-control methods in the Arizona Department of Transportation's *Standard Specifications for Road and Bridge Construction* (2008) and Maricopa County Rule 310, Fugitive Dust Ordinance. Disruption to traffic, especially during peak travel periods, would be minimized by a traffic control plan to help reduce impacts of traffic congestion and associated emissions during construction. These methods are discussed on page 4-85 of the Final Environmental Impact Statement.<br><br>According to the air quality analyses conducted for the proposed freeway, 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 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. Therefore, no loss of federal funds would occur. |

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| 379 | has the DEIS examined the dust that would be kicked up during the construction phase, when thousands of tons of dirt would be moved around upwind of the monitor. The proposed path of the SMF would take it over the Salt River bed. To construct the bridges would involve extensive earthmoving. Also, blasting South Mountain would release enormous amounts of dust (PM), and the natural wind currents and prevailing wind patterns would push this PM toward the air monitor at 43rd Avenue.<br><br>The SMF could therefore be the most expensive freeway ever built. Not only the construction costs, and the more than $20 million already spent on the DEIS, but then there would be the loss of a billion dollars in highway funds. This is a gift that keeps on giving, or taking, as there would be subsequent billions lost through the years due to PM exceedances.<br><br>The DEIS has not considered the effects of the additional pollution caused by the SMF – particularly the truck traffic – on the school children and elderly in proximity to the freeway route. Studies have shown sharp increases in black carbon on roadways with high levels of diesel traffic. The danger zone extends to about ½ mile from the roadway. The SMF would be within ½ mile of 20 schools with over 11,000 students. There would also be many elderly residents within that range who are particularly susceptible to the effects of air pollution. All would be at risk of adverse health effects including asthma and cardiovascular illness. (Thurston, *The Adverse Human Health Effects of Air Pollution that Result from Traffic-Related Air Pollution*, July 2013)<br><br>Effective mitigation of the effects of air pollution could only be achieved by barring truck traffic from the SMF. While effective filters could be placed in homes and schools near the freeway, these filters would not only be prohibitively expensive for all the schools and residences involved, but they would also only be effective for the time the school children and residents remained inside with windows closed. People cannot be expected to live their lives inside. In fact, one of the many reasons people live in Ahwatukee Foothills is because of the weather and the possibility of participating in outdoor activities. School children need to be able to be outside to use playgrounds and sporting facilities. It is hard to imagine how air pollution effects could be mitigated for all the school children participating in and attending sporting events at the Desert Vista High School stadium, for example.<br><br>**Modeling**<br><br>There are fundamental problems with the modeling described in the DEIS.<br><br>The DEIS uses faulty wind speed data and methodology in doing its modeling. Wind speed is an essential part of the air shed modeling that ADOT used to determine, in part, regional stability – which relates to inversion layers and local weather patterns impacting projected freeway pollution. For example, the DEIS inputs are based on times that are not concurrent with pollution building hours. The DEIS also failed to<br><br>9 |

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| 379 | **Air Quality** | A common theme in public comments on the proposed project has been the potential impacts of the project on children's health, primarily through vehicle emissions and noise. Many commenters raised concerns about the proximity of the project to schools or other aspects of the project that may affect children. In addition, the U.S. Environmental Protection Agency requested that the Final Environmental Impact Statement address Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*.<br><br>Throughout the Final 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 Final Environmental Impact Statement incorporates an assessment of the potential impacts of the proposed project on all populations, including children. The Final Environmental Impact Statement addresses potential impacts of the project on children in the Chapter 4 environmental consequences analyses.<br><br>The U.S. Environmental Protection Agency's Toxicity and Exposure Assessments for Children's Health report (see page 4-73 of the Final Environmental Impact Statement) 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. It mentioned children when identifying the effects of acute exposure to naphthalene. The Final Environmental Impact Statement acknowledges and fully discloses public scoping comments that raised the topic of health effects on neighborhoods and adjacent schools (see page 4-31 of the Final Environmental Impact Statement).<br><br>The Final Environmental Impact Statement evaluates Clean Air Act criteria air pollutant concentrations in Maricopa County and the Phoenix area (see pages 4-75 to 4-77 of the Final Environmental Impact Statement). With regard to air quality impacts, the Final Environmental Impact Statement addresses children's health impacts within the broader discussion regarding health impacts under the National Ambient Air Quality Standards. Clean Air Act Section 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 Section 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 *Federal Register* 3086 and 3090) (quoting S. Rep. No. 91-1196, 91st Cong., 2 Sess. 10 [1970]) (alterations in original). Accordingly, the Final Environmental Impact Statement National Ambient Air Quality Standards-based evaluation of criteria air pollutants includes 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 *Federal Register* 3090).<br><br>Sensitive receivers for air and noise are already included in the air quality and noise analyses in accordance with State and federal guidance. Both sections, *Air Quality* and *Noise*, 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. |

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| | has the DEIS examined the dust that would be kicked up during the construction phase, when thousands of tons of dirt would be moved around upwind of the monitor. The proposed path of the SMF would take it over the Salt River bed. To construct the bridges would involve extensive earthmoving. Also, blasting South Mountain would release enormous amounts of dust (PM), and the natural wind currents and prevailing wind patterns would push this PM toward the air monitor at 43rd Avenue.<br><br>The SMF could therefore be the most expensive freeway ever built. Not only the construction costs, and the more than $20 million already spent on the DEIS, but then there would be the loss of a billion dollars in highway funds. This is a gift that keeps on giving, or taking, as there would be subsequent billions lost through the years due to PM exceedances.<br><br>The DEIS has not considered the effects of the additional pollution caused by the SMF – particularly the truck traffic – on the school children and elderly in proximity to the freeway route. Studies have shown sharp increases in black carbon on roadways with high levels of diesel traffic. The danger zone extends to about ½ mile from the roadway. The SMF would be within ½ mile of 20 schools with over 11,000 students. There would also be many elderly residents within that range who are particularly susceptible to the effects of air pollution. All would be at risk of adverse health effects including asthma and cardiovascular illness. (Thurston, *The Adverse Human Health Effects of Air Pollution that Result from Traffic-Related Air Pollution*, July 2013) |
| 380 | Effective mitigation of the effects of air pollution could only be achieved by barring truck traffic from the SMF. While effective filters could be placed in homes and schools near the freeway, these filters would not only be prohibitively expensive for all the schools and residences involved, but they would also only be effective for the time the school children and residents remained inside with windows closed. People cannot be expected to live their lives inside. In fact, one of the many reasons people live in Ahwatukee Foothills is because of the weather and the possibility of participating in outdoor activities. School children need to be able to be outside to use playgrounds and sporting facilities. It is hard to imagine how air pollution effects could be mitigated for all the school children participating in and attending sporting events at the Desert Vista High School stadium, for example. |
| 381 | **Modeling** |
| | There are fundamental problems with the modeling described in the DEIS. |
| 382 | The DEIS uses faulty wind speed data and methodology in doing its modeling. Wind speed is an essential part of the air shed modeling that ADOT used to determine, in part, regional stability – which relates to inversion layers and local weather patterns impacting projected freeway pollution. For example, the DEIS inputs are based on times that are not concurrent with pollution building hours. The DEIS also failed to |
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| 379 (cont.) | | 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 ($PM_{10}$) was presented in the Draft Environmental Impact Statement, a quantitative project-level particulate matter ($PM_{10}$) hot-spot analysis is included in the Final Environmental Impact Statement. The results of the air quality updates are summarized in the prologue to the Final Environmental Impact Statement (beginning on page xiii) and are more fully described beginning on page 4-68 of the Final Environmental Impact Statement. The carbon monoxide and particulate matter ($PM_{10}$) analyses demonstrated that the proposed freeway would not contribute to any new localized violations, increase the frequency or severity of any existing violation, or delay timely attainment of the National Ambient Air Quality Standards or any required interim emissions reductions or other milestones. Through analysis, the Federal Highway Administration has determined that the proposed project would not produce disproportionate impacts on children.<br><br>Congestion relief resulting from the proposed freeway would provide localized air quality emissions reductions on area freeways and arterial streets and at interchanges, benefiting users of area highways and those living near congested roads.<br><br>Full disclosure about *Information Availability Constraints in Analyzing Project-Specific MSATs Impacts* begins on page 4-69 of the Draft Environmental Impact Statement in accordance with Council on Environmental Quality regulations [40 Code of Federal Regulations, Section 1502.22(b)] regarding incomplete or unavailable information. This section includes a basic analysis of the likely mobile source air toxics emissions impacts of the proposed action and the No-Action Alternative, but it is the Federal Highway Administration's view that information to credibly predict project-specific health impacts attributable to changes in mobile source air toxics emissions associated with a proposed set of freeway alternatives is incomplete or unavailable. |
| 380 | **Air Quality** | The air quality assessment for the proposed freeway analyzed impacts from carbon monoxide and particulate matter ($PM_{10}$) and followed U.S. Environmental Protection Agency guidelines. For mobile source air toxics, the analysis showed that for the Study Area, constructing the freeway would have a marginal effect on annual emissions in 2025 and 2035 (less than a 1 percent difference in total annual emissions between the Preferred Alternative and No-Action Alternative). With the Preferred Alternative in 2035, modeled mobile source air toxics emissions would decrease by 57 percent to more than 90 percent, depending on the pollutant, despite a 47 percent increase in vehicle miles traveled in the Study Area compared with 2012 conditions. The air quality analyses were updated for the Final Environmental Impact Statement, including a quantitative particulate matter ($PM_{10}$) analysis, and are more fully described beginning on page 4-68 of the Final Environmental Impact Statement.<br><br>According to the air quality analyses conducted for the proposed freeway, no violations of either the carbon monoxide or particulate matter ($PM_{10}$) standards were identified, even at worst-case locations along the project corridor. Thus, the carbon monoxide and particulate 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. Therefore, no mitigation of these effects is required. |
| 381 | | Specific comments are addressed below. |

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| | correlate the morning traffic hours 0500 to 1100 with the build up of tail pipe emissions during an aid shed inversion. The ability to determine CO and particulate concentrations needs accurate wind data measurements during periods expected to have high pollutant concentrations. |
| 383 | The South Mountain Transportation Corridor Study (SMTC) – a scoping document/component of the DEIS – confirmed that South Mountain greatly influences the local air shed movement. According to the SMTC, down slopes bring cooler air in the evenings. The SMTC and the DEIS, however, failed to indicate that this process intensifies the morning desert inversion, exacerbating pollutant concentrations. Air quality would worsen by the influence of the mountain and any build option. The mountain creates its own small air shed, which was not evaluated by the DEIS. All reporting data used valley wide components for stated results. |
| 384 | The sampling and stability data relied on by the SMTC and the DEIS is inaccurate. ADOT relies on air data taken at the Phoenix airport in the middle of the Valley without terrain conditions that proximate the region impacted by the SMF. Even based on the airport data, however, ADOT finds E and F stability 57% of the time. The actual SMF stability would be much worse, compounding Phoenix airport conditions by stronger temperature inversions because of the mountain's location and size. More pollutants from the freeway next to the ground would be trapped more quickly with significantly higher expected pollutant concentrations in the Ahwatukee Foothills community. |
| | The DEIS did not use MCAQD DELTA Temperature instruments for calculating inversion conditions to determine accurate pollutant concentration projections. DEIS technical documents clearly show that Maricopa County Air Quality delta T systems data was not used for actual ground level measurements of temperature inversions. Without this data of actual inversion strength, which shows how quickly pollutant concentrations will increase, any modeling cannot accurately reflect the population exposure to those pollutants. Stability and Air Quality modeling conducted by ADOT as set forth in the DEIS provided no useful data and must not be used to determine potential air pollution concentrations of the SMF. |
| 385 | ADOT used Aircraft Communications Addressing and Reporting System (ACARS) for vertical temperatures and wind profiles. This method does not correlate to ground level inversion strength for population exposure and is not a scientific method to derive accurate results. Data used does not have any quality assurance or quality control measurements. This means the equipment used does not have proven repeatability to produce the same temperature or wind speed for any given measurement. Moreover, no standard heights were used for correlating air shed temperatures. For example, one data point is measured at 2000 feet, the next is at 3000 feet, separated by miles and not at the same time of day. These random numbers fill air quality modeling functions without actually representing true results. |

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| 382 | **Air Quality** | The air quality assessment for impacts from carbon monoxide followed the U.S. Environmental Protection Agency guidelines in *Guideline for Modeling Carbon Monoxide from Roadway Intersections* (A-OAQPS, 1992). Inputs to the model were based on U.S. Environmental Protection Agency-recommended values or were selected to provide a conservative estimate of impacts. Modeling methodology and results were reviewed by the Federal Highway Administration, Arizona Department of Transportation, and Maricopa Association of Governments.<br>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, and MOBILE6.2 estimated a similar reduction. The effects of this 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 4-82). |
| 383 | **Air Quality** | According to the 2013 Arizona Department of Transportation *Air Quality Assessment South Mountain Freeway 202L Draft Report*, 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, wind flows are from the southeast and follow the Gila River channel to the north. Locations to the east of St. Johns experience flow from the east to the lower elevations along the Gila River. During the warmer hours' improved mixing, flows typically follow the river channel and come from the north and northwest.<br>Likewise, during a 1-month-long meteorological monitoring period (November 20, 2006, through December 21, 2006) at Pecos Road and 40th Street and a second 1-month-long monitoring period at Pecos Road and 24th and 40th streets (April 19, 2007, through May 21, 2007), winds during the morning hours typically were from the northeast. During the warmer hours, and with improved mixing, winds typically were from the west. |
| 384 | **Air Quality** | At the request of (then) Arizona State Senator John Huppenthal, short-term monitoring of meteorological conditions at Pecos Road and 24th and 40th streets was conducted during 2006 and 2007. Results of this sampling and data from various Maricopa County Air Quality Department monitoring sites were included in the technical report for informational purposes only. |
| 385 | **Air Quality** | The Aircraft Communications Addressing and Reporting System data were not used for modeling; they were included for informational purposes only. |

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| 385 | Any results derived from the ACARS data are incomplete, not relevant, and mislead the community with technical jargon trying to show justification of expected air quality concentrations for each build and no build situation. Not only is the data not taken from the freeway project area, the data is randomly gathered at different heights, locations, and times. |
| 386 | Notwithstanding that this NEPA process has taken over 12 years, ADOT has not conducted any studies on atmospheric and/or ambient quality/conditions in the Ahwatukee Foothills area. As a result, there is no valid baseline data to input into air quality models that predict how bad the pollution in the area would be. Sites listed for reference to determine air quality for the citizens are nowhere near the impacted area and should not be used to determine air quality north of the Pecos Road alignment. Similarly, there are no temperature soundings for accurate air shed profiling. There are no air toxics measurements taken to understand the current components of the ambient air quality, and there are no wind speed and direction instruments installed as necessary to apply good science for modeling. These wind speed and direction monitors should have been installed north of the Pecos Road alignment east and west throughout the Ahwatukee Foothills community and near South Mountain to show how the Ahwatukee Foothills air shed does not remove tail pipe emissions from the freeway, but actually washes pollutants to the west in the mornings, shifting north near noon, with later winds northeasterly. This normal wintertime pattern, known to all Arizona air quality technical persons, is not shown or reflected in the DEIS. |
| 387 | Furthermore, ADOT does not compare the results of their traffic modeling against actual data after freeways are built (1-11 through 1-20). Hence, there is no validation of their use of traffic modeling.<br><br>The inescapable conclusion is that there is no established validity to the modeling used in the DEIS. Without model validity, there can be no P&N or other justification to support building the SMF. |
| 388 | **Traffic Issues**<br><br>Traffic congestion at the proposed 59th Ave/I-10 interchange would make a new "Broadway Curve" traffic congestion disaster, not alleviate traffic congestion. This junction of the SMF with I-10 may have been conceived many years ago, but it is just another example of how ADOT has not used effective modeling. The current situation should have been foreseen long ago. Current traffic congestion between 59th and 51st Avenues on the I-10 during morning and evening rush hours is extreme. Yet there was no mention in the DEIS of the cumulative impacts and effects of traffic congestion at that proposed interchange. |
| 389 | Just as the junction of freeways at the Broadway Curve was not properly planned for and engineered, this new interchange at the SMF and I-10 promises to have the same type of traffic congestion problems because of poor planning. Let us not forget |

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| 386 | **Air Quality** | At the request of (then) Arizona State Senator John Huppenthal, short-term monitoring of meteorological conditions at Pecos Road and 24th and 40th streets was conducted during 2006 and 2007. Results of this sampling and data from various Maricopa County Air Quality Department monitoring sites were included in the technical report for informational purposes only. |
| 387 | **Air Quality** | The air quality assessment for impacts from carbon monoxide followed the U.S. Environmental Protection Agency guidelines in Guideline for Modeling Carbon Monoxide from Roadway Intersections (A-OAQPS, 1992). This is accepted methodology. |
| 388 | **Traffic** | Construction of the proposed freeway would include widening along Interstate 10 to facilitate entrance and egress of vehicles between the two freeways. Additional information related to the Interstate 10 modifications can be found in Figure 3-26, on page 3-49, and in Figure 3-29, on page 3-53 of the Draft Environmental Impact Statement. The design of the connection to Interstate 10 and the widening along Interstate 10 were developed in accordance with the Federal Highway Administration's Interstate System Access Informational Guide and has received an initial determination of operational and engineering acceptability from the Federal Highway Administration.<br><br>Detailed microsimulation models were developed for each of the action alternatives as well as for the No-Action Alternative. The results of the analysis concluded that the action alternatives would not have adverse impacts on traffic operational characteristics along Interstate 10 and would provide as good or better performance than that which would be anticipated with the No-Action Alternative.<br><br>An assessment of future traffic conditions with and without the proposed freeway is presented in the Draft Environmental Impact Statement, beginning on page 3-27.<br><br>The traffic conditions presented in these sections are consistent with the environmental impact analysis for elements such for as air quality and noise, and the results of those analyses can be found in their respective sections of Chapter 4 of the Draft Environmental Impact Statement. |
| 389 | **Traffic** | Construction of the proposed freeway would include widening along Interstate 10 to facilitate entrance and egress of vehicles between the two freeways. Additional information related to the Interstate 10 modifications can be found in Figure 3-26, on page 3-49, and in Figure 3-29, on page 3-53 of the Draft Environmental Impact Statement. The design of the connection to Interstate 10 and the widening along Interstate 10 were developed in accordance with the federal Highway Administration's Interstate System Access Informational Guide and has received an initial determination of operational and engineering acceptability from the Federal Highway Administration.<br><br>While the South Mountain Citizens Advisory Team recommended the W101 Alternative, all stakeholders' input was accounted for—including regional leaders, municipalities, members of the public, and members of the South Mountain Citizens Advisory Team—before identifying the W59 Alternative as the Preferred Alternative (see Draft Environmental Impact Statement pages 3-65 and 3-68). The Draft Environmental Impact Statement has detailed discussion regarding the relative merits and problems with the action alternatives evaluated in the Western Section. |

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| | that ADOT ignored the recommendation of the SMCAT in choosing the 59th Avenue alignment. We can only expect that the new interchange at 59th Avenue also would not be properly engineered to handle all the traffic. |
| 390 | The elimination of Pecos Road in building the SMF would be disastrous for local arterial traffic in Ahwatukee Foothills. Not only would there be no interchange at 32nd Street, there would also be no frontage road along the freeway. So Chandler Boulevard would become inundated with traffic, much as it was before Pecos Road was connected to the I-10. |
| | Also, the arterial streets north of Pecos, Liberty Lane and Lakewood Parkway, would become major East-West arterials in the area between Desert Foothills Parkway and 40th Street. Neither Liberty Lane nor Lakewood Parkway were designed for this. They provide access to 4 schools, including Desert Vista High School. Currently, the school bus traffic uses 32nd Street from Pecos Road to get to these schools. Without a SMF interchange at 32nd Street, this bus traffic would clog the already stressed arterials of Liberty Lane and Lakewood Parkway. High school traffic also includes a lot of student cars that would clog the arterials. |
| 391 | Furthermore, the elimination of the access to Pecos Road from near 27th Avenue (the road is currently called S. Chandler Boulevard) exacerbates an already difficult access problem for residents in that area. ADOT promised to pave W. Chandler Boulevard to provide residents access to Ahwatukee Foothills further east, but this by no means provides these residents with an acceptable access to/from their homes. Pecos Road currently provides their only access out of their housing area, and it is a direct connect to I-10. With the SMF, Chandler Boulevard would provide their only access out of their housing area, and it would provide a convoluted access for resident to either the SMF or I-10. Egress in case of emergency would be extremely limited. |
| 392 | The DEIS lacks a traffic study of the effect the SMF would have on local arterial streets in Ahwatukee Foothills. A study should have been done both for traffic patterns during construction of the SMF as well as patterns that would develop after the SMF would be completed. |
| 393 | The people in Laveen desperately need faster access to a freeway and they want the truck traffic off their local arterial streets. But they are currently being held hostage to the SMF, told that it is the only way they can get rid of the truck traffic on their streets and get faster access out of the area for themselves. This is not true. A spur highway to/from I-10 West could easily accomplish both of their objectives. It would also support the objective of getting faster access in/out of the 51st Avenue commercial area for the truck traffic. Yet the DEIS did not mention the consideration of this alternative. ADOT's reaction to such a suggestion has been that it "wouldn't complete the loop" and that it would not allow for O&D regional mobility. The "complete the loop" objective is absurd and the O&D objective gets to the heart of what PARC has said this freeway is all about from the beginning. Yet the truck |
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| 390 | **Traffic** | The determination to not include an interchange at 32nd Street was made in coordination with the City of Phoenix (see Figure 3-8 on page 3-15 of the Final Environmental Impact Statement). The interchange would have displaced more than 100 homes and would have been located near an existing high school. The City recommended that, based on these impacts, the interchange be removed from the study. In 2006, the City of Phoenix conducted a traffic circulation study to evaluate the impacts of the proposed freeway on the local street system, including the shift of access to Foothills Reserve and Calabrea from Pecos Road to Chandler Boulevard. The City study found no adverse effects on the local street system from the freeway (see Appendix 3-1 in the Final Environmental Impact Statement).<br>The traffic projections for Chandler Boulevard (see Figure 3-12, on page 3-29 of the Draft Environmental Impact Statement) do show a reduction with the proposed freeway when compared with conditions without the proposed freeway. The freeway construction staging plan for the area along Pecos Road would allow for keeping east–west travel open during construction. One side of the freeway would be constructed while traffic remained on Pecos Road. When complete, traffic would be shifted from Pecos Road to the new freeway. At that time, the other side of the freeway would be built. However, temporary detours may be needed during construction. (See page 3-27 of the Draft Environmental Impact Statement.) |
| 391 | **Traffic** | The determination to not include an interchange at 32nd Street was made in coordination with the City of Phoenix (see Figure 3-8 on page 3-15 of the Final Environmental Impact Statement). The interchange was evaluated but ultimately eliminated because of increased residential displacements and cost.<br>The extension of Chandler Boulevard west of 19th Avenue is included in this project because reasonable access must be maintained to the neighborhoods at the western end of Pecos Road (see Figure 3-33, on page 3-57 in the Draft Environmental Impact Statement).<br>Residents in this area would continue to have a direct connection to Interstate 10 by using the proposed freeway. The travel time savings as a product of using the South Mountain Freeway in comparison with use of Pecos Road would likely offset any additional travel time attributable to the shift in access to Chandler Boulevard.<br>Emergency responders would address the construction of the proposed freeway by amending the local emergency response plan to include the facility. |
| 392 | **Traffic** | Existing traffic volumes on the City of Phoenix's streets are available at the City's Web site, <phoenix.gov/streets/traffic/volumemap>.<br>In 2006, the City of Phoenix conducted a traffic circulation study to evaluate the impacts of the proposed freeway on the local street system, including the shift of access to Foothills Reserve and Calabrea from Pecos Road to Chandler Boulevard. The City study found no adverse effects on the local street system from the freeway (see Appendix 3-1 in the Final Environmental Impact Statement). |
| 393 | **Alternatives** | The need identified for the proposed action is to provide regional east–west mobility and to address existing and future transportation system deficiencies. While providing greater access to residents and businesses in Laveen Village to Interstate 10 (Papago Freeway) is a benefit of the proposed action, it is not a primary need identified for the proposed action.<br>According to 23 Code of Federal Regulations §771.111(f)," the action evaluated in the environmental impact statement must connect logical termini and be of sufficient length to address environmental matters on a broad scope...". The proposed action should satisfy the project need and should be considered in the context of the local |

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| | bypass objective has always been downplayed by ADOT, even in the DEIS, in an attempt to mislead the public to bolster public approval of the project. Accordingly, the DEIS has not analyzed the improved O&D regional mobility that would result from a spur highway to/from I-10 West. |
| 394 | **Hazardous Materials**<br><br>The DEIS, starting on page 152, states,<br>"AFFECTED ENVIRONMENT<br>A hazardous materials evaluation for the construction and operation of the proposed freeway was conducted to determine whether:<br><br>➢ contaminated soils would be present near potential hazardous materials sites<br><br>➢ underground storage tanks would need removal or relocation because of freeway construction<br><br>➢ wells and dry wells would be present, providing unintended conduits for preexisting or accidental releases from the construction process to groundwater supplies<br><br>➢ during construction activities, workers could encounter soil contaminated with hazardous materials that had not previously been identified" |
| 395 | It doesn't mention the transportation of hazardous materials on the new freeway and their associated risks, or the fact that the area where the freeway would connect with I-10 West crosses a site that was identified in the 1980s as contaminated and added to the list of the state of Arizona's Water Quality Assurance Revolving Fund (WQARF), which is the state's equivalent of a Superfund Site. The site has known groundwater contamination and soil contamination.<br><br>The introduction of hazardous materials and their associated risks into Ahwatukee Foothills by the proposed SMF and its truck traffic would be significant. There are no industries using and emitting toxic chemicals in Ahwatukee Foothills that have reporting requirements under either the Toxics Release Inventory of the Emergency Planning and Community Right to Know Act (EPCRA) or the reporting of fixed facility hazardous materials (chemical) inventories required under the emergency planning provisions of EPCA. The latter, Tier Two chemical inventory reports, are annually required, and are reported to the fire department of jurisdiction (Phoenix Fire Department), the local emergency planning committee (Maricopa County LEPC), and the state emergency response commission (AZSERC). (The requirement for retail gas stations to file Tier Two reports was removed many years ago as long as these stations are in compliance with their reporting under the regulations for underground storage tanks.)<br><br>The Maricopa County LEPC and the AZSERC are the two emergency planning agencies tasked with developing and updating a comprehensive emergency<br><br>13 |

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| 393 | **Alternatives** | area socioeconomics and topography, the future travel demand, and other infrastructure improvements in the area. A partial freeway from Interstate 10 (Papago Freeway) to Laveen Village is not feasible because it would not meet the proposed freeway's identified purpose and need. |
| 394 | | Comment quotes the Draft Environmental Impact Statement. |
| 395 | **Hazardous Materials** | The corridor analysis revealed sites that would need further assessment during the property acquisition phase of the project, if an action alternative were to become the Selected Alternative. The Arizona Department of Transportation employs a phased approach to site assessment that allows time for cleanup of any sites found to have hazardous waste issues. The project team concluded from the level of analysis conducted during the environmental impact statement process that the types of sites likely to be acquired contain common hazardous waste issues such as underground storage tanks, asbestos and lead paint in buildings, and other commonly found issues (see page 4-153 of the Draft Environmental Impact Statement). The Arizona Department of Transportation maintains a process for addressing these issues in accordance with all applicable environmental laws and regulations.<br><br>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 4-157 of the Final Environmental Impact Statement).<br><br>The Arizona Department of Public Safety (which includes the State Highway Patrol) has primary responsibility for enforcing traffic laws. The Arizona Department of Public Safety also has primacy when calling in support for traffic accidents, including hazardous materials accidents (see text box on page 4-157 of the Final Environmental Impact Statement). The Arizona Department of Transportation maintains a list of contractors who provide emergency response services, as well as local municipalities whose fire and police departments operate in cooperation with the Arizona Department of Public Safety on incidents within their jurisdiction. Requirements for shippers are maintained by the Arizona Department of Transportation's Enforcement Compliance Division.<br><br>The West Van Buren Water Quality Assurance Revolving Fund site was identified and considered during development of the Draft Environmental Impact Statement (see pages 4-97 and 4-153 of the Draft Environmental Impact Statement, and the Draft Initial Site Assessment prepared for the proposed project). These sites are primarily groundwater-impact sites, and groundwater is found at a depth of over 60 feet below the footprint of the Preferred Alternative. Given the separation distance between the adversely affected medium (groundwater) and the construction zone (near-surface in these locations), the project team determined that these sites would not pose a risk to construction or to the general public once the facility were completed. This assessment has been clarified in the Final Environmental Impact Statement on page 4-165. |

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| 396 | bypass objective has always been downplayed by ADOT, even in the DEIS, in an attempt to mislead the public to bolster public approval of the project. Accordingly, the DEIS has not analyzed the improved O&D regional mobility that would result from a spur highway to/from I-10 West.<br><br>**Hazardous Materials**<br><br>The DEIS, starting on page 152, states,<br>"AFFECTED ENVIRONMENT<br>A hazardous materials evaluation for the construction and operation of the proposed freeway was conducted to determine whether:<br><br>➢ contaminated soils would be present near potential hazardous materials sites<br><br>➢ underground storage tanks would need removal or relocation because of freeway construction<br><br>➢ wells and dry wells would be present, providing unintended conduits for preexisting or accidental releases from the construction process to groundwater supplies<br><br>➢ during construction activities, workers could encounter soil contaminated with hazardous materials that had not previously been identified"<br><br>It doesn't mention the transportation of hazardous materials on the new freeway and their associated risks, or the fact that the area where the freeway would connect with I-10 West crosses a site that was identified in the 1980s as contaminated and added to the list of the state of Arizona's Water Quality Assurance Revolving Fund (WQARF), which is the state's equivalent of a Superfund Site. The site has known groundwater contamination and soil contamination.<br><br>The introduction of hazardous materials and their associated risks into Ahwatukee Foothills by the proposed SMF and its truck traffic would be significant. There are no industries using and emitting toxic chemicals in Ahwatukee Foothills that have reporting requirements under either the Toxics Release Inventory of the Emergency Planning and Community Right to Know Act (EPCRA) or the reporting of fixed facility hazardous materials (chemical) inventories required under the emergency planning provisions of EPCA. The latter, Tier Two chemical inventory reports, are annually required, and are reported to the fire department of jurisdiction (Phoenix Fire Department), the local emergency planning committee (Maricopa County LEPC), and the state emergency response commission (AZSERC). (The requirement for retail gas stations to file Tier Two reports was removed many years ago as long as these stations are in compliance with their reporting under the regulations for underground storage tanks.)<br><br>The Maricopa County LEPC and the AZSERC are the two emergency planning agencies tasked with developing and updating a comprehensive emergency<br><br>13 |

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| 396 | **Hazardous Materials** | 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 4-157 of the Final Environmental Impact Statement).<br><br>The Arizona Department of Public Safety (which includes the State Highway Patrol) has primary responsibility for enforcing traffic laws. The Arizona Department of Public Safety also has primacy when calling in support for traffic accidents, including hazardous materials accidents (see text box on page 4-157 of the Final Environmental Impact Statement). The Arizona Department of Transportation maintains a list of contractors who provide emergency response services, as well as local municipalities whose fire and police departments operate in cooperation with the Arizona Department of Public Safety on incidents within their jurisdiction. Requirements for shippers are maintained by the Arizona Department of Transportation's Enforcement Compliance Division.<br><br>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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| 396 | response plan for Maricopa County and the state of Arizona, respectively. The plan, by statute, requires:<br><br>"Each emergency plan shall include (but is not limited to) each of the following:<br><br>(1) Identification of facilities subject to the requirements of this subchapter that are within the emergency planning district, identification of routes likely to be used for the transportation of substances on the list of extremely hazardous substances referred to in section 11002(a) of this title, and identification of additional facilities contributing or subjected to additional risk due to their proximity to facilities subject to the requirements of this subchapter, such as hospitals or natural gas facilities.<br><br>(2) Methods and procedures to be followed by facility owners and operators and local emergency and medical personnel to respond to any release of such substances.<br><br>(3) Designation of a community emergency coordinator and facility emergency coordinators, who shall make determinations necessary to implement the plan.<br><br>(4) Procedures providing reliable, effective, and timely notification by the facility emergency coordinators and the community emergency coordinator to persons designated in the emergency plan, and to the public, that a release has occurred (consistent with the emergency notification requirements of section 11004 of this title).<br><br>(5) Methods for determining the occurrence of a release, and the area or population likely to be affected by such release.<br><br>(6) A description of emergency equipment and facilities in the community and at each facility in the community subject to the requirements of this subchapter, and an identification of the persons responsible for such equipment and facilities.<br><br>(7) Evacuation plans, including provisions for a precautionary evacuation and alternative traffic routes.<br><br>(8) Training programs, including schedules for training of local emergency response and medical personnel.<br><br>(9) Methods and schedules for exercising the emergency plan.<br><br>Due to the unique nature of Ahwatukee Foothills, which is a residential area, and not zoned for heavy industrial uses, few hazardous materials transportation issues and risks exist there because none of these chemicals, other than gasoline and diesel, are being transported into the area, other than incidentally adjacent on Interstate 10, which is east of the area. A catastrophic release of hazardous chemicals along the I-10 corridor would have only an indirect effect on Ahwatukee Foothills.<br><br>14 |

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| 397 | To determine the additional risks of hazardous materials transportation, the Maricopa County LEPC and the AZSERC would also need and utilize hazardous materials commodity flow studies to determine the types and amounts of hazardous materials being transported through or within the county and/or state to meet their respective planning requirements. Of course, the AZSERC does exactly that periodically, and the data and emergency planning is updated. But that data and the relevant analysis is absent in the DEIS. |
| 398 | The planning for response to an incident involving the release into the environment of a hazardous material involves using Aereal Locations of Hazardous Atmospheres (ALOHA), RMP*Comp, and Computer Aided Management of Emergency Operations (CAMEO). All are USEPA approved and provided emergency planning screening tools. RMP*Comp is used to predict the effects of a release that would exceed the ALOHA model limit of six miles. The worst case scenario release for chlorine was the only hazardous material being transported on the highways that, in the event of a catastrophic release, would exceed the six-mile ALOHA modeling limit, so RMP*Comp is used to assess the radius of impact for the worst-case chlorine release. ALOHA, RMP*Comp, and CAMEO are all distributed by the USEPA and are software programs provided and periodically updated by USEPA to determine the distance from a release point where there would be a danger to human health and safety. ALOHA can also calculate the levels of a released chemical that could infiltrate nearby buildings, the levels of those chemicals that will likely be in these buildings, and the time it would take for the released chemical(s) to reach their maximum concentration.<br><br>As stated in the reports of the various hazardous materials commodity flow studies conducted in Arizona, ALOHA modeling already indicates, "a catastrophic release of gasoline from a tanker truck could cause areas up to 1.0 mile away to be affected at LOC 3 (a concentration where the general population could experience severe health effects and death) and areas as far as 3.1 miles away to be affected at LOC 1 (enough to cause discomfort in the general population). Credible and catastrophic releases of sulfuric acid would create an evacuation radius of 0.5 miles from the highway and railroad." (LOC means level of concern; LOCs range from 3 down to 1.)<br><br>Ahwatukee Foothills already has some emergency planning needs due to the transportation of gasoline into and within the area. There should already be planning for an incident involving gasoline within a mile of current arterial traffic, including Pecos Road. Schools within a mile of Pecos should have an evacuation plan.<br><br>The proposed SMF would only add exponentially to emergency planning needs and risks as more truck traffic of this chemical and others that are potentially more dangerous in the event of a catastrophic release would be transported immediately adjacent to schools, parks, shopping areas, and other vulnerable facilities in Ahwatukee Foothills. The freeway would be the sole source of these new risks from a hazardous materials incident, thus this would be a very significant impact directly |



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| 397 | **Hazardous Materials** | The project team is aware of the Hazardous Materials Commodity Flow Studies that the Arizona State Emergency Response Commission maintains. These studies 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 is amended, it is made available to the Arizona Department of Transportation. |
| 398 | **Hazardous Materials** | According to 46 *Federal Register* 18026 (March 23, 1981), the environmental impact statement 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 Code of Federal Regulations 771 Environmental Impact and Related Procedures or in the Federal Highway Administration Technical Advisory T 6640.8A Guidance for Preparing and Processing Environmental and Section 4(f) Documents to address releases of hazardous chemicals due to a transportation incident in National Environmental Policy Act documents for transportation projects like the proposed action. As discussed above, reasonably foreseeable actions are those that are likely to occur or probable, rather than those that are merely possible.<br><br>If the proposed action is the Selected Alternative in the record of decision, planning for emergency situations would be initiated. If the plan is amended, it is made available to the Arizona Department of Transportation. |

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| | caused by the freeway, and a full analysis of the risks and effects should have been examined in the NEPA process. |
| 397 | The data and calculations of risk and distance from certain chemicals carried on the highways are documented in the July 9, 2009, report, *The Hazardous Materials Commodity Flow Study Report I-19 Corridor from I-10 to Mexico Border, Arterial Highways and Railways, Pima and Santa Cruz Counties, Arizona*; the October 30, 2006 report, *Hazardous Materials Commodity Flow Study Report I-8 and I-10 Corridors, Arterial Highways and Railways, Yuma, Maricopa, Pinal, Pima and Cochise Counties, Arizona*; and the December 5, 2008 *Hazardous Material Commodity Flow Study I-10 Corridor from SR 85 to California* prepared for the AZSERC. Previous commodity flow study reports would show the same sorts of information. |
| 399 | One piece of data that is missing is the Hazardous Materials Commodity Flow Study Report for the I-10 to I-8 to SR 85 to I-10 route that was selected as a truck bypass around 2006. (Part of the idea of this particular truck bypass was to route truck traffic away from the Phoenix metro area as a measure to reduce particulate matter air pollution.) According to ADOT, this also is part of the CANAMEX highway system that has been approved via treaties with Mexico and Canada, and this truck bypass has now been officially designated as the route of the CANAMEX. |
| | Clearly, the SMF DEIS should have studied or promulgated this data to determine the traffic of hazardous materials that could be expected to shift to the SMF. Even without this last bit of information, a close approximation should have been calculated and examined in the DEIS. |
| 400 | HDR, the contractor for ADOT in the November 26, 2008, *SPR 624 Hazardous Materials Transportation in Arizona Literature Review with Findings Report*, would have reviewed all of this information, at a minimum. HDR is also the contractor for ADOT in the NEPA process for the SMF, and should have had access to this same information. There can be no valid reason for excluding any mention or analysis of the risks and additional planning from hazardous materials transportation in the SMF DEIS other than a deliberate exclusion. |
| 401 | From the beginning of the NEPA process regarding the SMF, Ahwatukee Foothills residents and others have consistently and vociferously raised concerns about the added risks to their community from the transportation of hazardous materials on the new SMF. In doing so they have consistently voiced concerns regarding the additional problems with hazardous materials response in the affected area, as well as evacuation and shelter in place issues. There is also a risk from the consequences of a hazardous materials transportation incident to the communities on the north side of the pass at South Mountain, and Laveen would be at a particularly heightened risk also. Therefore, the same types of impacts that threaten Ahwatukee Foothills would apply to these other communities, but at least these others have alternate escape routes that the community of Ahwatukee Foothills does not have. |
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| 399 | **Trucks** | The road network in the Maricopa Association of Governments travel demand model includes the Interstate 8 and State Route 85 corridor. So, while the roads are not in the Study Area for the proposed action, traffic and trip distributions along the corridor are included in the traffic analysis for the proposed action. Any traffic that would shift from the Interstate 8 and State Route 85 corridor to the proposed action would be included in the vehicle mix considered in the analysis.<br>A truck driver traveling from Tucson to Los Angeles and choosing to use Interstate 10 and the proposed freeway would travel 15 miles less than one choosing to use the designated truck bypass along Interstate 8 and State Route 85.<br>Choosing to travel on the proposed action versus Interstate 8 and State Route 85 would not translate to any substantial travel time benefits. Therefore, 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. |
| 400 | **Hazardous Materials** | The 2008 hazardous material report referenced in the comment was prepared to assist the Arizona Department of Transportation in refining its policies and process for determining hazardous materials routing in the state. It was a preliminary document and intended to form a basis of understanding about how other states' planning processes address this issue. The report was not intended to provide specific recommendations for hazardous materials routing, but rather to provide the Arizona Department of Transportation with information to consider in making possible adjustments to its planning process. The recommendations of the report have been taken under advisement by the Arizona Department of Transportation. |
| 401 | **Hazardous Materials** | According to 46 *Federal Register* 18026 (March 23, 1981), the environmental impact statement 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 Code of Federal Regulations 771 Environmental Impact and Related Procedures or in the Federal Highway Administration Technical Advisory T 6640.8A Guidance for Preparing and Processing Environmental and Section 4(f) Documents to address releases of hazardous chemicals due to a transportation incident in National Environmental Policy Act documents for transportation projects like the proposed action. As discussed above, reasonably foreseeable actions are those that are likely to occur or probable, rather than those that are merely possible.<br>If the proposed action is the Selected Alternative in the record of decision, planning for emergency situations would be initiated. If the plan is amended, it is made available to the Arizona Department of Transportation. |

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| 401 | As of 2010, the 35.8 square-mile community of Ahwatukee Foothills has a population of 77,249. So if there would be a catastrophic release from a 17-ton chlorine tanker along the Pecos Road alignment, almost all of these 77,249 would be at risk of death or severe injury. In Laveen, there are 35,502 residents who would be at a similar risk. There would also be risks to the residents of the Gila River Indian Community along the Pecos alignment. All of these above mentioned communities would be forever at risk of a very terrible, certain, and quick death from a chlorine release if this freeway gets built. All of these communities would have to be forever on hair trigger alert. They, as communities, would need periodic training and drills to protect them, as well as infrastructure in the form of siren systems and other alert systems, telephone ring down systems, and much more. |
| 402 | We know that over a hundred trucks per hour would be the number at the beginning of the freeway's opening, just from localized traffic information, but when the I-10 to I-8 to SR 85 to I-10 truck bypass is negated, there will be much more truck traffic. That number can be quantified, and that is something the DEIS should have done with the millions of dollars already spent. But HDR and ADOT skirted that by claiming in the DEIS that that information is not known and the impacts are unclear. That is absurd; that is precisely the sort of data that is quite available, and must be examined, studied, and analyzed. |
| 403 | The fact that the proposed freeway would eliminate the exits from the community at 32nd Street and Pecos would only exacerbate an already difficult position that this community would be in if there were an evacuation or the need for a response to a catastrophic hazardous materials incident. Regular traffic is already voluminous at that intersection:<br>• Pecos (west approach) - Total 22,313 veh/day (2012 count) including 11,727 westbound and 10,586 eastbound volumes.<br>• Pecos (east approach) - Total 28,178 veh/day (2012 count) including 14,331 westbound and 13,847 eastbound volumes<br>• 32nd Street (north approach) - Total 7,807 veh/day (2011 count) including 3,761 northbound and 4,406 southbound volumes.<br>With that access to Pecos Road being removed by the freeway, all of that traffic would have to find another way out and further clog and congest other exit routes. Yet there was no mention or analysis of these issues in the DEIS. |
| 404 | The October 30, 2006 report, *Hazardous Materials Commodity Flow Study Report I-8 and I-10 Corridors, Arterial Highways and Railways, Yuma, Maricopa, Pinal, Pima and Cochise Counties, Arizona*, also mentions the risk from a release of chlorine gas and the risks of a catastrophic release during a transportation incident. As stated, RMP*Comp is a USEPA approved emergency planning screening tool used when ALOHA predicts the effects of a release would exceed the ALOHA model limit of six miles. The worst-case scenario release for chlorine was the only material to exceed the six-mile ALOHA limit. |

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| 402 | **Trucks** | The road network in the Maricopa Association of Governments travel demand model includes the Interstate 8 and State Route 85 corridor. So, while the roads are not in the Study Area for the proposed action, traffic and trip distributions along the corridor are included in the traffic analysis for the proposed action. Any traffic that would shift from the Interstate 8 and State Route 85 corridor to the proposed action would be included in the vehicle mix considered in the analysis. A truck driver traveling from Tucson to Los Angeles and choosing to use Interstate 10 and the proposed freeway would travel 15 miles less than one choosing to use the designated truck bypass along Interstate 8 and State Route 85. Choosing to travel on the proposed action versus Interstate 8 and State Route 85 would not translate to any substantial travel time benefits. Therefore, 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. |
| 403 | **Traffic** | The determination to not include an interchange at 32nd Street was made in coordination with the City of Phoenix (see Figure 3-8 on page 3-15 of the Draft Environmental Impact Statement). The interchange was eliminated based on undesirable residential displacements and cost.<br>In 2006, the City of Phoenix conducted a traffic circulation study to evaluate the impacts of the proposed freeway on the local street system, including the shift of access to Foothills Reserve and Calabrea from Pecos Road to Chandler Boulevard. The City study found no adverse effects on the local street system from the freeway (see Appendix 3-1 in the Final Environmental Impact Statement). |
| 404 | **Hazardous Materials** | The project team is aware of the Hazardous Materials Commodity Flow Studies that the Arizona State Emergency Response Commission maintains. These studies 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 is amended, it is made available to the Arizona Department of Transportation. |

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| 405 | Since Ahwatukee Foothills is not six miles wide from Pecos Road to South Mountain, it is easy to conclude that, in the event of a catastrophic release of chlorine from a 17-ton tanker of chlorine gas, all of Ahwatukee Foothills would have to either evacuate or shelter in place. Further, an ALOHA modeling indicates that buildings within two miles of the point where the chlorine release occurred would have high enough levels of chlorine gas infiltrate into them to become lethal, which means that shelter in place strategies would not work. The only option would be evacuation, but as chlorine gas flows rapidly at ground level because it is heavier than air, it is unlikely that people would survive long enough to evacuate. Depending on the size of the hole or the rupture of the tanker of chlorine, the tanker could completely empty in a minute or so. And these chlorine truck tankers are quite vulnerable to bullets and other physical trauma.<br><br>For an objective examination of issues related to a catastrophic release from a chlorine tanker truck, see *Mathematical Modeling and Decision Analysis for Terrorism Defense: Assessing Chlorine Truck Attack Consequence and Countermeasure Cost Effectiveness,* Anthony Michael Barrett.<br><br>It notes:<br><br>"Adapting our modeling system to ruptures emptying a tank via flashing two-phase flow through an orifice [80], forming horizontal jets, indicates that such releases could result in approximately the same number of fatalities as an instantaneous release, if such a release takes 10 minutes or less. " page 42<br><br>"People in vehicles may be as well off staying where they are, turning off the air-supply fan and sealing the vents, as heading into a nearby building. It may also be dangerous for them to try to drive away, since they may unintentionally drive into higher-concentration areas." |
| 406 | "Without fast and effective defense response, release of 17 tons of chlorine from a tank truck in a generic urban area with 2.5 m/s wind and Pasquill stability class F, could result in approximately 4000 (half within ~10 minutes) to 30,000 fatalities (half within ~20 minutes), depending on dose-response model." |
| 405 | Chlorine gas in even small concentrations is harmful. A person encountering chlorine gas will have a hard time seeing as the chlorine reacts with the moisture in the eye to create hydrochloric acid. The eyes will tear up and make seeing very difficult. At high enough levels, severe scarring and blindness will result.<br><br>The same formation of hydrochloric acid will occur in the throat and lungs. People won't be able to take a deep breath or breathe without choking, as mucous membranes in the respiratory system will be quite irritated and will start to weep. Lungs will blister, and the ability to pass oxygen to the blood through the lung membranes will be compromised immediately. Walking, much less running, will be very difficult. A half blinded, gasping person who cannot take a deep breath is not |

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| 405 | **Hazardous Materials** | According to 46 *Federal Register* 18026 (March 23, 1981), the environmental impact statement 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 Code of Federal Regulations 771 Environmental Impact and Related Procedures or in the Federal Highway Administration Technical Advisory T 6640.8A Guidance for Preparing and Processing Environmental and Section 4(f) Documents to address releases of hazardous chemicals due to a transportation incident in National Environmental Policy Act documents for transportation projects like the proposed action. As discussed above, reasonably foreseeable actions are those that are likely to occur or probable, rather than those that are merely possible.<br><br>If the proposed action is the Selected Alternative in the record of decision, planning for emergency situations would be initiated. If the plan is amended, it is made available to the Arizona Department of Transportation. |
| 406 | **Hazardous Materials** | Stability data for the area are likely unavailable, but an "F" stability would probably occur only during the early morning hours and would be associated with drainage winds coming from the northeast that would carry the plume away from inhabited areas. Issues of a severe accident such as the one described exist for many portions of the Phoenix metropolitan area. Fast and effective defense response is critical in the emergency response plans prepared by emergency service providers and discussed on page 4-157 of the Final Environmental Impact Statement. |

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| 405 | going to be a match for a cloud of chlorine, and any evacuation, or rescue on any scale, after the arrival of the chlorine gas will be virtually impossible. Handicapped and elderly people, as well as children, would be at a particular disadvantage. People outside would have no place to go to for sheltering in place. Shelter in place strategies, i.e. having people shelter in a building, stop ventilation systems, and block up and seal all air flow, will have to be successful before the chlorine gas arrives. Otherwise, those sheltering will bottle themselves up with a harmful gas.<br><br>ALOHA modeling indicates that certainly all buildings within a mile of the chlorine release from a 17-ton tanker truck would have such high levels of chlorine gas infiltrate into them that most people there would die, or be very severely injured. Some models put that circle of assured death at closer to two miles away. There are schools and residential areas on the north side of the Pecos Road alignment within a mile of the proposed SMF, and many more within two miles of the freeway alignment. There would be thousands of people at an extreme risk. |
| 407 | The prevailing winds push across GRIC land toward the north, toward South Mountain, and also to the west through the 51st Avenue pass. Chlorine fumes from an incident on the Pecos Road alignment will certainly be most likely to blow the cloud into all of Ahwatukee Foothills, then on to the GRIC at 51st Avenue, then into Laveen. |
| 405 | There is a pass at 51st Avenue where the proposed truck bypass/freeway is planned. If the chlorine incident happened at the 51st Avenue pass and/or Laveen, the one to two mile kill zone and six+ miles of harm would apply there with just a few minutes to take appropriate action to evacuate or shelter in place.<br><br>There is the additional problem of handling the people outdoors at parks, bicycling, hiking, shopping, and other activities if such an incident occurred. Strategies would have to be determined well in advance. Law enforcement personnel and emergency responders would need to be trained, drilled, equipped properly, and otherwise prepared for this scenario. If the 17-ton tanker of chlorine empties in minutes, there won't be much the emergency responders can do to stop the leak, but patch kits are available for that purpose. A rupture or hole may be too large to patch, and that size of opening would vent all the chlorine anyway by the time any responders arrived. Limited freeway access and egress becomes a response hindrance also.<br><br>One responder strategy would be to try to "knock down" the cloud of chlorine with water. To prepare for that, the freeway would have to have a hydrant system with enormous amounts of water and water pressure, as no fire truck would have enough water to last very long. All that water and chlorine would make plenty of hydrochloric acid. The hydrochloric acid would eat away and decay the responding vehicles and equipment, the concrete on the freeway, its culverts, degrade the asphalt pavement, and ruin any metal cables and metal where the acid solution washed to. The freeway would have to be designed so that such an incident would not also destroy it. |

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| 407 | **Air Quality** | According to the 2013 Arizona Department of Transportation *Air Quality Assessment South Mountain Freeway 202L Draft Report*, 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, wind flows are from the southeast and follow the Gila River channel to the north. Locations to the east of St. Johns experience flow from the east to the lower elevations along the Gila River. During the warmer hours' improved mixing, flows typically follow the river channel and come from the north and northwest.<br><br>Likewise, during a 1-month-long meteorological monitoring period (November 20, 2006, through December 21, 2006) at Pecos Road and 40th Street and a second 1-month-long monitoring period at Pecos Road and 24th and 40th streets (April 19, 2007, through May 21, 2007), winds during the morning hours typically were from the northeast. During the warmer hours, and with improved mixing, winds typically were from the west. |

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| 408 | There would also be residual effects. The January 2005 chlorine disaster in Graniteville, South Carolina illustrates some of these. Following the chlorine disaster, Avondale Mills (textile company) officials had spent more than $140 million on cleaning, repairs and damage mitigation from the textile mills machinery that was corroded so severely by the chlorine gas that it had to be replaced, only to find that new equipment brought to the plant quickly corroded because chlorine was still present and reacting with other agents.<br><br>That the corrosive effects of the chlorine from such a large release would last so long needs to be taken into account in assessing the costs associated with such an incident. The chlorine reacts with moisture to form hydrochloric acid, but over time, one would expect that this would diminish. In assessing the damages from a large-scale chlorine release, emergency responders and emergency planning agencies should look for this lasting effect. The corrosive effects could harm pavement, concrete, industrial infrastructure, and even residential structures and the electrical wiring. A much more detailed decontamination, including pH samplings, should be undertaken in the recovery phase of operations to prevent such devastation.<br><br>NEPA requires examination of cultural, social, and economic impacts, and the new hazardous materials traffic and risks caused by the SMF would certainly affect all of these topic areas.<br><br>Despite all of this, there is nothing in the DEIS that even mentions the hazardous materials transportation and risks issue! Yet, it is evident that ADOT plans for hazardous materials being transported on this proposed highway. [Page 5-20]. |
| 409 | Hazardous Materials has been mostly limited in the DEIS to a discussion of hazardous materials that might be encountered in the soils during construction. Yet, despite this alleged concern, the fact that the proposed path of the freeway crosses contaminated property near Interstate 10 and 55th Avenue is neither mentioned nor examined, much less the financial liability the taxpayers might be assuming by purchasing the contaminated property. That would certainly be an enormous economic impact. Since the 1980s, there has been well-documented groundwater contamination in the area around 51st avenue and Van Buren to 59th Avenue and Van Buren, enough so that it was added to the list of the state of Arizona's Water Quality Assurance Revolving Fund (WQARF), which is the state's equivalent of a Superfund Site.<br><br>By purchasing this contaminated land for the freeway, the state of Arizona would assume the liability for the clean up of these contaminants, along with the liability for adverse health impacts suffered by workers in the area. This is a type of corporate welfare, as it would remove the liability costs from the various polluters and current property owners that have ground and groundwater pollution issues and transfer it to the people of Arizona. |

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| 408 | **Hazardous Materials** | According to 46 *Federal Register* 18026 (March 23, 1981), the environmental impact statement 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 Code of Federal Regulations 771 Environmental Impact and Related Procedures or in the Federal Highway Administration Technical Advisory T 6640.8A Guidance for Preparing and Processing Environmental and Section 4(f) Documents to address releases of hazardous chemicals due to a transportation incident in National Environmental Policy Act documents for transportation projects like the proposed action. As discussed above, reasonably foreseeable actions are those that are likely to occur or probable, rather than those that are merely possible.<br><br>If the proposed action is the Selected Alternative in the record of decision, planning for emergency situations would be initiated. If the plan is amended, it is made available to the Arizona Department of Transportation. |
| 409 | **Hazardous Materials** | The West Van Buren Water Quality Assurance Revolving Fund site was identified and considered during development of the Draft Environmental Impact Statement (see pages 4-97 and 4-153 of the Draft Environmental Impact Statement, and the Draft Initial Site Assessment prepared for the proposed project). These sites are primarily groundwater-impact sites, and groundwater is found at a depth of over 60 feet below the footprint of the Preferred Alternative. Given the separation distance between the adversely affected medium (groundwater) and the construction zone (near-surface in these locations), the project team determined that these sites would not pose a risk to construction or to the general public once the facility were completed. This assessment has been clarified in the Final Environmental Impact Statement on page 4-165. |

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| 410 | **Noise pollution**<br><br>The DEIS cited an outdated noise abatement policy and included an incomplete review of the regulations regarding noise (page 4-80). In particular, the Quiet Communities Act of 1978, promoting the development of state and local noise control programs, should have been discussed. Further, not all receptors that could be impacted by noise from the SMF were identified and impacts predicted for. For example, effects on multiple schools located within 0.5 miles of the proposed SMF were not evaluated (page 4-84). Vibration from blasting is qualitatively discussed in the Topography, Geology, and Soils section (page 4-115) of the DEIS; however, vibration from non-blasting construction activities and from operational impacts is not discussed anywhere within the DEIS.<br><br>The DEIS discusses the use of noise barriers as a primary means of noise mitigation (page 4-80). The use of noise barriers as proposed in the DEIS is unacceptable. The DEIS states that barriers would not be constructed higher than 20 feet because of cost, aesthetics, and constructability. This is as it should be. Yet in some areas, a 20-foot sound barrier would not achieve acceptable noise abatement (page4-90). |
| 411 | The design of a depressed (below ground level) freeway has been rejected, in spite of the fact that this would provide substantial noise abatement. It appears that the SMF is being designed as the "Walmart of freeways" to keep the cost down, regardless of the negative impacts this would have on the communities affected. Raised freeway overpasses from a ground level freeway would propagate traffic noise and pollution at a greater distance. |
| 412 | The only other noise mitigation strategy that was considered, according to the DEIS, is the use of rubberized asphalt, which isn't even a proven strategy. Even to the extent that it works to reduce noise, it would not provide enough noise abatement to make the noise pollution levels acceptable at some locations along the proposed freeway route. |
| 413 | **Water and Soil Issues**<br><br>Concerns were raised to ADOT throughout the scoping process about the destruction of supply wells located along Pecos Road if the SMF were built along that alignment. ADOT appears to be aware of these concerns, as an attempt is made to directly address them on page 4-100 of the DEIS. Yet the analysis of wells used for water supply for the Foothills golf courses make use of information that is both outdated and erroneous. This leads to an insufficient analysis that does not make use of the "best available scientific and technical information."<br><br>ADOT identified that the Foothills Community Association has multiple sources of water available other than the supply well that would be lost because of the SMF. The DEIS identifies effluent, well water, and municipal water supplied by the City of Phoenix as being available. The wastewater treatment plant referenced in the DEIS |

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| 410 | **Noise** | The noise analysis has been updated for the Final Environmental Impact Statement using most recent Federal Highway Administration and Arizona Department of Transportation policy and traffic projections provided by the Maricopa Association of Governments in August 2013. This updated analysis begins on page 4-88 of the Final Environmental Impact Statement. No substantial differences between the analyses presented in the Draft and the Final Environmental Impact Statements resulted.<br><br>As stated in the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, environmental impact statements should be analytic rather than encyclopedic [40 Code of Federal Regulations Part 1502.2(a)]. Those noise regulations of direct consequence to the proposed action were discussed. There are no federal requirements directed specifically to highway traffic induced vibration. All studies the highway agencies have done to assess the impact of operational traffic induced vibrations have shown that both measured and predicted vibration levels are less than any known criteria for structural damage to buildings. The Arizona Department of Transportation Noise Abatement Policy limits noise abatement walls to 20 feet in height. |
| 411 | **Drainage** | As noted on page 3-18 of the Draft Environmental Impact Statement, drainage served as the primary design constraint for the Pecos Road segment of the E1 Alternative. Assessments were performed to determine constructibility and effectiveness in avoiding or reducing impacts and to evaluate whether a depressed profile would generate other desired or undesired outcomes. Based on the results of these assessments, further design options were developed and refined in attempts to reduce impacts on the adjacent community. The modifications incorporated alternative drainage designs, use of retaining walls, and other features to reduce right-of-way requirements. |
| 412 | **Noise** | As disclosed on page 4-90 of the Draft Environmental Impact Statement, not all noise barriers would be capable of reducing traffic noise levels to levels recommended in the Arizona Department of Transportation's Noise Abatement Policy. The Federal Highway Administration does not recognize rubberized asphalt as a noise abatement methodology; however, the Arizona Department of Transportation will use rubberized asphalt as the driving surface for the proposed freeway. |
| 413 | **Water Resources** | The comment is correct that wastewater effluent is not available as a replacement source and is not being used. The City of Phoenix did operate a wastewater reclamation facility in this area, but it was removed from service and demolished. The City of Phoenix still owns the property, but all facilities have been removed from the site. Thus, only two water sources are available for irrigation and lake supply for the Foothills Community Association: the well that would be acquired and potable water from the City of Phoenix. The discussion on page 4-100 of the Draft Environmental Impact Statement has been modified in the Final Environmental Impact Statement to reflect that reclaimed wastewater would not be available; however, the conclusion on page 4-100 is still appropriate. As stated on page 4-100 of the Draft Environmental Impact Statement, "In the event that well replacement were to be impossible, the Arizona Department of Transportation would still replace the water that would be lost through the acquisition." |

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| | was removed by the City of Phoenix in the late 1990s. This key information, that effluent is completely unavailable, was reportedly made available to ADOT. It was not, however, used in the analysis of water supply availability. |
| 414 | The analysis of water replacement on page 4-100 is flawed in another way. The analysis is summarized as: "It is understood that finding a suitable location for a new well in this area may be difficult." This difficulty is dismissed by indicating that there are at least two other sources of water, which is erroneous. The only other source is municipal water, which would be prohibitively expensive. Further, the statement that drilling a new well may be difficult seriously downplays the importance of the wells that would be lost, the unique hydrogeology of the area, and the rarity of how productive these particular wells are. |
| 415 | In addition to being technically flawed, the analysis presented in the DEIS has been applied in an arbitrary manner. The detailed analysis focused solely on the Foothills Community Association and the potential loss of their wells. The DEIS does not analyze nearby entities that would experience the same impacts, or entities anywhere else along the freeway route. One specific example is the Lakewood Community Association. The supply wells currently used by the Lakewood community would be even more difficult to replace given their large pumping capacity. |
| 416 | The analysis of water quality is insufficient. While existing background water quality (page 4-97) is of interest, the more important concern is the potential for the proposed freeway route to impact known areas of contamination. This is not disclosed in the assessment of water resources. There are several basic and readily available data sources that should have been consulted for this analysis. At a minimum: (1) known Leaking Underground Storage Tank (LUST) sites, (2) known State WQARF or Federal CERCLA superfund sites, and (3) known or suspected landfills, either historic or active (the location along the Salt River makes this a particularly important item to assess in the DEIS). |
| 417 | There is no section within the DEIS that discussed the unique erosion issues that would be encountered when excavating South Mountain. Making deep cuts into three ridges of the mountain would create an enormous area for potential erosion of the mountain. Yet the DEIS just referenced the use of "erosion control." Erosion control for deep cuts into mountains must include special measures that not only mitigate the effects of erosion at the time the excavation occurs, but also the long-term and continuing effects of erosion. Without a plan and commitment to mitigate the continuing forces of erosion, initial efforts to control erosion will become ineffective within a relatively short time. |
| 418 | Regarding the DEIS component addressing the US Army Corps of Engineers section 404 of the Clean Water Act (page 4-112), the 401 certification by ADEQ is in jeopardy. EPA has found that ADOT has routinely failed to comply with contracts with FHWA, USACOE, ADEQ and USFS to maintain, limit or control sediment |

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| 414 | **Water Resources** | Page 4-100 of the Draft Environmental Impact Statement states that finding a suitable location for a new well in this area may be difficult. Productivity of the well in bedrock formations is primarily based on intercepting fractures, and that can be very difficult to do. The Arizona Department of Transportation is aware of the difficult conditions that exist in replacing wells in this area.<br>The procedure identified on page 4-100 of the Draft Environmental Impact Statement defines the procedure that the Arizona Department of Transportation would use to replace impacted wells, and also identifies the general costs that the Arizona Department of Transportation would incur to replace the lost water sources.<br>Depending on whether an action alternative were the Selected Alternative, it may be possible to keep the well in its current location, but move the well controls and associated piping to outside of the right-of-way. Such an analysis would be performed later in the design process. |
| 415 | **Water Resources** | Because of the public concern expressed during the environmental impact statement process, page 4-100 of the Draft Environmental Impact Statement focuses on the Foothills Community Association to provide more details on the well acquisition, condition assessment, and replacement process used by the Arizona Department of Transportation. This information applies equally to the Lakewood Community Association or any other acquired well in the area. |
| 416 | **Hazardous Materials** | The West Van Buren Water Quality Assurance Revolving Fund site was identified and considered during development of the Draft Environmental Impact Statement (see pages 4-97 and 4-153 of the Draft Environmental Impact Statement, and the Draft Initial Site Assessment prepared for the proposed project). These sites are primarily groundwater-impact sites, and groundwater is found at a depth of over 60 feet below the footprint of the Preferred Alternative. Given the separation distance between the adversely affected medium (groundwater) and the construction zone (near-surface in these locations), the project team determined that these sites would not pose a risk to construction or to the general public once the facility were completed. This assessment has been clarified in the Final Environmental Impact Statement on page 4-165. |
| 417 | **Geology** | Information gained through geotechnical investigations would be used to design the slopes to be stable and to protect against stormwater flows and related erosion. Technical reports addressing rock cut slope designs would be prepared as part of the preliminary and final geotechnical investigations of the selected freeway alignment.<br>Stormwater flows and related erosion from excavated areas would be addressed by implementation of a Stormwater Pollution Prevention Plan and related best practices. Stormwater Pollution Prevention Plans are required on Arizona Department of Transportation construction projects to control and mitigate erosion and loss of soil from the project and off-site movement of eroded sediments.<br>During construction, off-site impacts to soil from erosion related to the freeway construction project are not expected. Implementation of the Stormwater Pollution Prevention Plan and related best practices would keep eroded sediments on site for collection and replacement as appropriate. After construction, grading and drainage and landscape design components of the freeway system would act to control and mitigate erosion. |

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| | discharges into jurisdictional waters of the US. The Gila and Salt Rivers are waters of the US inside this planned project. EPA actions have created an environmental program inside of ADOT. This environmental program has failed to implement the most basic construction mitigations. Statewide highway construction along hillsides have created large and numerous rills (deep cuts down hillsides). These rills wash sediment into our waterways, polluting the ecosystem. ADOT management downplays environmental stewardship. ADEQ, Army Corps of Engineers, and FHWA do not conduct any inspections. Internal ADOT environmental staff does not influence ADOT management. FHWA does not provide funding for continued maintenance of hillside erosion after construction. Statewide, ADOT does not provide its maintenance highway workers funding to mitigate sediment discharges from hillside rills and failed sediment control features of the original construction best management practices. ADOT has failed to protect the environment in nearly all completed construction sites with the same terrain of the SMF. It would be expected that ADOT would not honor their own Statewide Individual Stormwater permit, allowing sediment discharges during and after construction of the freeway. (Haddow, *South Mountain Freeway 202 DEIS Comments Prepared for PARC et al*, 2013) |
| 419 | All of this points to an expected inadequate response by ADOT to water and soil issues that would arise during and after construction of the SMF. And the DEIS provides nothing to lead to a different conclusion. |
| 420 | **South Mountain Preserve and Park**<br><br>The DEIS proposed that the SMF would cut through a part of South Mountain Preserve and Park. The DEIS said that the eminent domain claim on the Preserve and Park would be for just a small part of the whole, so it would be of little consequence. To some extent this is a matter of opinion. However, if someone claimed that they just wanted to cut a couple of toes off the foot of the Director of ADOT, his opinion would undoubtedly be that his toes are quite important. We also object quite strongly to the desecration of South Mountain Preserve and Park! It is a living entity that should remain whole, and it should not experience painful losses that result in ugly scars.<br><br>We must ask, what part of the word "preserve" does ADOT not understand? The people of Phoenix created the Phoenix Mountain Preserves to do just what the word implies – preserve them. Further, South Mountain Park is the largest wilderness municipal park in this country – some claim in the world. The fact that it is large is what makes it a magnificent wilderness park. And since it is right in the city of Phoenix, it is readily accessible to all the residents of the Valley of the Sun. Recreation is one of the major draws bringing people to this Valley, both to vacation and to live. Yet ADOT indicates in the DEIS that this is of little consequence and implies that it is much more important for trucks to get to their destinations as directly as possible, in spite of any amount of damage they may do to our precious resources, including South Mountain. |



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| 418 | **Water Resources and Waters of the United States** | Controlling and treating runoff is a normal function of the Arizona Department of Transportation projects. No evidence is offered to substantiate such statements. The U.S. Army Corps of Engineers, as a cooperating agency, has participated and contributed in each step of the environmental process. The agency has found the logical sequence of decision making to be sound and in line with National Environmental Policy Act requirements. The Arizona Department of Environmental Quality has also contributed to the process. Both agencies as referenced in the comment have oversight roles in project permitting as established in the Clean Water Act (Sections 401, 402, and 404). Extensive mitigation in accordance with the permitting requirements can be found in the *Water Resources* and *Waters of the United States* sections of Chapter 4 of the Final Environmental Impact Statement. The Arizona Department of Transportation is fully obligated and committed to implementation and adherence to those mitigation strategies. |
| 419 | **Mitigation** | If an action alternative is the Selected Alternative, the record of decision issued for the project will contain all mitigation measures to be implemented for the project. The Federal Highway Administration and Arizona Department of Transportation will commit to implementation of all mitigation measures in the record of decision. |
| 420 | **Section 4(f) and Section 6(f)** | The acreage of parkland to be converted to a transportation use is reported on Draft Environmental Impact Statement page 5-14 in the section, *Direct Use*. Additional text on that page focuses on other concerns associated with the direct use of the park/preserve (see the sidebar on page 5-14, "*The South Mountains in Phoenix's Sonoran Preserve System*") as well as describing the importance of the park in the region.<br><br>City of Phoenix planning efforts since the mid-1980s illustrate an awareness of the potential for the proposed 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 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 Draft Environmental Impact Statement page 5-14). The project team examined alternatives to avoid the park, but did not identify any feasible and prudent alternatives to avoid impacts. 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 pages S-39 and 5-31 of the Draft Environmental Impact Statement). 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 the Draft Environmental Impact Statement, starting on page 5-23). |

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| 421 | Let us not forget that South Mountain is home to many living species. The DEIS mentioned (Chapter 4) that ADOT was aware that the desert tortoise is a threatened species and that many animals and plants would be permanently affected by the SMF, particularly in South Mountain. However, their mitigation plan is basically to be careful to destroy as few of the living species and their habitat as possible. The SMF would try to put in replacement migration routes for South Mountain animals that migrate to and from the Sierra Estrella. And that's it. The desert tortoise population (especially sensitive since it is a threatened species) would just be diminished, as would its habitat and that of all the species that inhabit the western part of South Mountain. |
| | Additional issues that the DEIS does not consider include: |
| 422 | • The Sonoran Desert was listed in 2011 as one of the 12 most threatened landscapes in the US by the Cultural Landscape Foundation. Further fragmentation of an endangered ecosystem would have a significantly negative impact. |
| 423 | • The increase in fire danger would further threaten a desert ecosystem that has not evolved with fire. |
| 424 | • A highway through the ecosystem would increase the types of invasive species and increase their spread because the highway would provide a corridor for their movement. |
| | • With the increase in pollutants, there would be an increase in the hazard to humans who hike and bike in South Mountain Park, particularly on the west end. The hazard is not only that the highway would increase the pollutants in the park but also that the activities of walking and bicycling increase exposure to air pollutants. |
| | • The increased air pollutants due to the proximity of the highway would also negatively affect many plants, whether airborne or in the soil. |
| | • South Mountain contains many iconic plants, such as ironwood, saguaro, Arizona Queen of the Night, elephant tree, ocotillo. Construction kills plants. Those that are removed to be replanted, such as saguaro, historically experience a very high mortality rate. |
| | • Specialized species such as elephant tree and saguaro will respond negatively due to loss of habitat. |
| | • The western part of South Mountain Park currently has a healthier ecosystem than the eastern or central part of the park because it is a more isolated area and those who use it don't typically abuse it. It provides a sense of wilderness not experienced in any other City Preserve. A highway through the western end of the park would destroy the wilderness and make it the least healthy part of the park. |
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| 421 | **Biology, Plants, and Wildlife** | The section, *General Impacts on Vegetation, Wildlife, and Wildlife Habitat*, beginning on page 4-125 of the Draft Environmental Impact Statement, discloses by what means the proposed action and its alternatives would affect vegetation, wildlife, and wildlife habitat. A Biological Evaluation was submitted to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and 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 (Gopherus agassizii, draft unpublished abstract compiled and edited by the Heritage Data Management System, Phoenix). Current information 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).<br>Connectivity is planned to allow wildlife movement beneath the freeway in multiuse crossings (see page 4-125 of the Draft 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 as well as 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 *Mitigation*, beginning on page 4-138 of the Final Environmental Impact Statement). |
| 422 | **Biology, Plants, and Wildlife** | The comment reflects a concern associated with the cumulative impacts of the proposed action on habitat in the region. A discussion of cumulative impacts addressing this issue can be found in the section, *Secondary and Cumulative Impacts*, beginning on page 4-167 of the Draft Environmental Impact Statement. The proposed project is located primarily adjacent to already developed areas except for at the southwest end of the South Mountains. In this area, multifunctional crossing structures are planned at locations where natural movement corridors occur along major drainages (see pages 4-125, 4-126 and Figure 3-25 on page 3-47 of the Draft Environmental Impact Statement). |
| 423 | **Biology, Plants, and Wildlife** | The comment implies that the proposed action would be directly responsible for increased fire potential. While a new road facility could increase the chance of fires originating from cigarettes tossed out windows or from vehicles catching fire on the roadside, the Arizona Department of Transportation designs urban roadside landscaping to minimize the chance of roadside fires spreading beyond the right-of-way. Fires originating on urban highways and spreading to natural preserves is not an issue on similar facilities in the Phoenix area, such as State Route 51 and State Route 101L. |
| 424 | **Biology, Plants, and Wildlife** | The Arizona Department of Transportation regularly implements mitigation measures to control and minimize the presence of invasive and noxious species on its facilities and would do the same for this project, in compliance with Executive Order 13112. This requirement is described on page 4-119 of the Draft Environmental Impact Statement. This includes identifying, controlling, and monitoring for invasive species as well as prevention of their incidence in areas where they are not presently found. The Order also includes restoration of native plant species where invasive plant species are found. |

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Let us not forget that South Mountain is home to many living species. The DEIS mentioned (Chapter 4) that ADOT was aware that the desert tortoise is a threatened species and that many animals and plants would be permanently affected by the SMF, particularly in South Mountain. However, their mitigation plan is basically to be careful to destroy as few of the living species and their habitat as possible. The SMF would try to put in replacement migration routes for South Mountain animals that migrate to and from the Sierra Estrella. And that's it. The desert tortoise population (especially sensitive since it is a threatened species) would just be diminished, as would its habitat and that of all the species that inhabit the western part of South Mountain.

Additional issues that the DEIS does not consider include:

- The Sonoran Desert was listed in 2011 as one of the 12 most threatened landscapes in the US by the Cultural Landscape Foundation. Further fragmentation of an endangered ecosystem would have a significantly negative impact.
- The increase in fire danger would further threaten a desert ecosystem that has not evolved with fire.
- A highway through the ecosystem would increase the types of invasive species and increase their spread because the highway would provide a corridor for their movement.
- 425 With the increase in pollutants, there would be an increase in the hazard to humans who hike and bike in South Mountain Park, particularly on the west end. The hazard is not only that the highway would increase the pollutants in the park but also that the activities of walking and bicycling increase exposure to air pollutants.
- 426 The increased air pollutants due to the proximity of the highway would also negatively affect many plants, whether airborne or in the soil.
- 427 South Mountain contains many iconic plants, such as ironwood, saguaro, Arizona Queen of the Night, elephant tree, ocotillo. Construction kills plants. Those that are removed to be replanted, such as saguaro, historically experience a very high mortality rate.
- 428 Specialized species such as elephant tree and saguaro will respond negatively due to loss of habitat.
- 429 The western part of South Mountain Park currently has a healthier ecosystem than the eastern or central part of the park because it is a more isolated area and those who use it don't typically abuse it. It provides a sense of wilderness not experienced in any other City Preserve. A highway through the western end of the park would destroy the wilderness and make it the least healthy part of the park.

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| 425 | **Air Quality** | The contribution of mobile sources (traffic) to air quality in the Study Area is addressed beginning on page 4-68 of the Final Environmental Impact Statement. 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. |
| 426 | **Air Quality** | The contribution of mobile sources (traffic) to air quality in the Study Area is addressed beginning on page 4-68 of the Final Environmental Impact Statement. As noted on page 4-69 of the Final Environmental Impact Statement, secondary standards are promulgated to minimize environmental and property damage. Many of the criteria pollutants do not have secondary standards. Primary and secondary standards for particulate matter ($PM_{10}$) are identical; no threshold is established by the U.S. Environmental Protection Agency for carbon monoxide (CO). 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 (see discussion beginning on page 4-68 of the Final Environmental Impact Statement). |
| 427 | **Biology, Plants, and Wildlife** | Improved techniques and knowledge regarding the transplanting of protected native plants in Arizona have increased survival rates. The Arizona Department of Transportation has considerable experience transplanting native plants protected by the Arizona Native Plant Law and has experienced a high survival rate. The Arizona Department of Transportation has conducted studies on the best methods to use for transplanting desert species, particularly ironwood trees and saguaros, and was honored by the American Society of Landscape Architects in 2012 for this work. The research results have been incorporated in the procedures for plant salvage for Arizona Department of Transportation projects and throughout the industry. Reports on the research findings are available from the Arizona Department of Transportation Research Center at <azdot.gov/planning/research-center/research/research-reports>. |
| 428 | **Biology, Plants, and Wildlife** | Transplanting of protected native plants has been highly successful with application of proper techniques. The loss of habitat is not expected to cause individual nearby plants to respond. |
| 429 | **Biology, Plants, and Wildlife** | Information regarding the context and attributes of the South Mountains is described in the Draft and Final Environmental Impact Statements. The habitat characteristics of the Study Area, including those habitats within the park/preserve, can be found in the section, *Biological Resources*, beginning on page 4-125 of the Final Environmental Impact Statement. |

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| 430 | All these negative effects on the South Mountain Preserve are completely unacceptable to all who care about the preservation of the Phoenix mountains – and that is the majority of the population of Phoenix. |
| 431 | **Environmental Justice**<br><br>Three fundamental environmental justice principles apply to the transportation project development process:<br><br>• to avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations<br>• to ensure the full and fair participation by all potentially affected communities in the transportation decision-making process<br>• to prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations." |
| 432 | The JATAP monitoring at the St. Johns monitoring site on the GRIC found certain air toxics attributed to "mobile sources," or vehicular traffic burning hydrocarbons. These findings of the air toxics were alarmingly high, many times the "accepted" cancer risk standard set by USEPA.<br><br>The St. Johns monitoring site's highest toxic findings:<br><br>• formaldehyde at 34 times this standard;<br>• benzene at 8 times this standard;<br>• 1,3 butadiene at 7.5 times this standard; and<br>• acetaldehyde at 3.4 times this standard.<br><br>The JATAP study also found that three other air toxics associated with transportation exhaust, Ethylbenzene, m,p-Xylene, and o-Xylene, were detected over 50% of the time at levels above the Maximum Daily Limit set by the state health department.<br><br>Residents of the GRIC living around and adjacent to the monitoring site are currently being subjected to all of these carcinogens, not just one. And if a freeway were to be built near this monitoring site on the GRIC, there would be more air toxics in addition to the ones detected at levels that far exceed the USEPA risk standard.<br><br>One of the JATAP's findings presented to the EPA National Air Monitoring Conference in November 2006 was, "Annual average concentrations of formaldehyde, acetaldehyde, benzene and 1,3 butadiene were on the high end of the range reported in EPA funded assessments of other US cities." This finding relates to any future proposed freeway in the JATAP study area, which includes in entirety the route of the proposed SMF. It also has huge environmental justice implications<br><br>25 |

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| 430 | **Section 4(f) and Section 6(f)** | Chapter 5, *Section 4(f) Evaluation*, and the section, *Cultural Resources*, beginning on page 4-140 of the Final Environmental Impact Statement, disclose the potential impacts on the collective resources associated with the South Mountains. Use of the mountains for the purposes of the proposed freeway represents two-tenths of one percent of the total mountain range. Since 1988, and as part of this environmental impact statement process, several measures have been undertaken and will be undertaken to further reduce effects on the mountains. These measures, including narrowing the design footprint, acquiring replacement land immediately adjacent to the mountains, and the provision of highway crossings, are outlined in the *Cultural Resources* and *Biological Resources* sections of Chapter 4 and in text beginning on page 5-23 of the Final Environmental Impact Statement. |
| 431 | **Environmental Justice and Title VI** | The section entitled *Title VI and Environmental Justice*, beginning on page 4-29 in the Draft Environmental Impact Statement, presents acceptable methods, data, and assumptions to assess the potential for disproportionately high and adverse effects from the proposed action on environmental justice populations and disparate impacts to populations protected under Title VI. Based upon the content of the section, no such effects would result from the action alternatives.<br><br>In light of comments received on the Draft Environmental Impact Statement, the above-referenced conclusions were confirmed in the preparation of the Final Environmental Impact Statement. To provide further clarity, the discussions of environmental justice and Title VI were separated and additional text explaining the relationship of environmental justice and Title VI to various environmental elements was added throughout Chapter 4, *Affected Environment*, *Environmental Consequences, and Mitigation*, as exemplified by the inserted text on page 4-29 of the Final Environmental Impact Statement. |
| 432 | **Air Quality** | 40 Code of Federal Regulations Section 1500.1(b) also directs the Federal Highway Administration to focus its 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 toxics 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 toxics 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 South Mountain Freeway project, the mobile source air toxics emissions analysis for the Study Area found 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. 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 (see discussion beginning on page 4-77 of the Final Environmental Impact Statement). Like most highway projects that have received a mobile source air toxics emissions analysis, the South Mountain Freeway project would result in a negligible change to a very small component of overall cancer risk, and this risk is declining regardless of alternative. |

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| | because, in other words, some of the worst air in the country, in terms of air toxics, was found in the JATAP study, and the high readings on the GRIC are among these highest readings. |
| 433 | So the air toxics are already worse than many other areas of the United States, and the proposed freeway would add even more. Obviously, adding more vehicular traffic emissions by building a freeway where there had not been one would add to this toxic burden. Yet despite its claims about environmental justice, these real environmental problems were not mentioned in the DEIS, nor was a plan to mitigate these impacts ever mentioned. |
| | The JATAP also showed serious air toxics problems at the West and South Phoenix monitoring sites, and these monitoring sites are in the midst of other low-income and ethnic minority communities, mostly of Hispanic origin. These would also be exacerbated by the addition of another source of mobile toxics. The JATAP and its results mentioned "toxic hot spots near freeways" specifically because freeways cause toxic hotspots for air toxics. |
| | It appears that ADOT and HDR would sacrifice human health and safety to accomplish their goal of building the SMF, and would rather see people on the GRIC, West and South Phoenix suffer and die from cancer than simply conduct an honest and objective NEPA process. That appears to be a violation of the civil rights of the GRIC residents near the St. Johns JATAP monitoring site, as well as the low-income and ethnic minority communities of West and South Phoenix. |
| 434 | The failure to properly analyze and/or address the air toxics information from the JATAP study is a deliberate violation of the very Environmental Justice issues that ADOT and FHWA claim to be observing. One must conclude that the DEIS itself is an extreme example of environmental injustice, despite its assertions. |
| | The GRIC areas along the proposed freeway have extremely limited access and egress. A chlorine incident and the potential consequences of that are detailed in the comments regarding the DEIS' complete failure to even mention the risks from a hazardous materials incident, much less mitigating the risks. Such an incident would certainly doom the residents of the GRIC around the 51st Avenue pass. This is another severe example of environmental injustice, as no consideration is made for the lifestyle of the Native Americans on the GRIC, and no plan or means for preparing for response to such a disaster is even mentioned in the DEIS. |
| | There is mention in the DEIS of a myriad of organizations and tribes that were approached about the DEIS, but not one environmental justice group in South or West Phoenix, or on the GRIC, were ever contacted. That has to be a deliberate step, as some of these groups even tried to approach ADOT and were rebuffed. |
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| 432 (cont.) | | Summary information about the findings of the Joint Air Toxics Assessment Project study is provided as background information in the Draft and Final Environmental Impact Statements, but the study itself is not relevant to the type of analysis done pursuant to the Federal Highway Administration's mobile source air toxics guidance, which is an emissions analysis. Monitored ambient concentrations of mobile source air toxics (the focus of the Joint Air Toxics Assessment Project) do not inform this type of analysis. While monitoring data can be useful for defining current conditions in the affected environment (to the extent that the monitoring data are current), they don't tell us anything about future conditions, or the impacts of the project itself, which is why an emissions analysis was performed. The mobile source air toxic analysis presented 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 Area for 2025 and 2035. This approach was used because the inventory estimate accounts for changes in traffic and emissions on all roadways affected by a proposed project, and would, therefore, be a more reliable predictor of changes in exposure to mobile source air toxics. |
| 433 | **Title VI and Environmental Justice** | For the South Mountain Freeway project, the mobile source air toxics emissions analysis for the Study Area found 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. 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 (see discussion beginning on page 4-77 of the Final Environmental Impact Statement). Like most highway projects that have received a mobile source air toxics emissions analysis, the South Mountain Freeway project would result in a negligible change to a very small component of overall cancer risk, and this risk is declining regardless of alternative. |
| 434 | **Environmental Justice and Title VI** | 40 Code of Federal Regulations Section 1500.1(b) also directs the Federal Highway Administration to focus its 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 toxics 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 toxics 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 South Mountain Freeway project, the mobile source air toxics emissions analysis for the Study Area found 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. 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 (see discussion beginning on page 4-77 of the Final Environmental Impact Statement). Like most highway projects that have received a mobile source air toxics emissions analysis, the South Mountain Freeway project would result in a negligible change to a very small component of overall cancer risk, and this risk is declining regardless of alternative. |

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| | because, in other words, some of the worst air in the country, in terms of air toxics, was found in the JATAP study, and the high readings on the GRIC are among these highest readings.<br><br>So the air toxics are already worse than many other areas of the United States, and the proposed freeway would add even more. Obviously, adding more vehicular traffic emissions by building a freeway where there had not been one would add to this toxic burden. Yet despite its claims about environmental justice, these real environmental problems were not mentioned in the DEIS, nor was a plan to mitigate these impacts ever mentioned.<br><br>The JATAP also showed serious air toxics problems at the West and South Phoenix monitoring sites, and these monitoring sites are in the midst of other low-income and ethnic minority communities, mostly of Hispanic origin. These would also be exacerbated by the addition of another source of mobile toxics. The JATAP and its results mentioned "toxic hot spots near freeways" specifically because freeways cause toxic hotspots for air toxics.<br><br>It appears that ADOT and HDR would sacrifice human health and safety to accomplish their goal of building the SMF, and would rather see people on the GRIC, West and South Phoenix suffer and die from cancer than simply conduct an honest and objective NEPA process. That appears to be a violation of the civil rights of the GRIC residents near the St. Johns JATAP monitoring site, as well as the low-income and ethnic minority communities of West and South Phoenix.<br><br>The failure to properly analyze and/or address the air toxics information from the JATAP study is a deliberate violation of the very Environmental Justice issues that ADOT and FHWA claim to be observing. One must conclude that the DEIS itself is an extreme example of environmental injustice, despite its assertions. |
| 435 | The GRIC areas along the proposed freeway have extremely limited access and egress. A chlorine incident and the potential consequences of that are detailed in the comments regarding the DEIS' complete failure to even mention the risks from a hazardous materials incident, much less mitigating the risks. Such an incident would certainly doom the residents of the GRIC around the 51st Avenue pass. This is another severe example of environmental injustice, as no consideration is made for the lifestyle of the Native Americans on the GRIC, and no plan or means for preparing for response to such a disaster is even mentioned in the DEIS. |
| 436 | There is mention in the DEIS of a myriad of organizations and tribes that were approached about the DEIS, but not one environmental justice group in South or West Phoenix, or on the GRIC, were ever contacted. That has to be a deliberate step, as some of these groups even tried to approach ADOT and were rebuffed. |

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| 434 (cont.) | | Summary information about the findings of the Joint Air Toxics Assessment Project study is provided as background information in the Draft and Final Environmental Impact Statements, but the study itself is not relevant to the type of analysis done pursuant to the Federal Highway Administration's mobile source air toxics guidance, which is an emissions analysis. Monitored ambient concentrations of mobile source air toxics (the focus of the Joint Air Toxics Assessment Project) do not inform this type of analysis. While monitoring data can be useful for defining current conditions in the affected environment (to the extent that the monitoring data are current), they don't tell us anything about future conditions, or the impacts of the project itself, which is why an emissions analysis was performed. The mobile source air toxic analysis presented 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 Area for 2025 and 2035. This approach was used because the inventory estimate accounts for changes in traffic and emissions on all roadways affected by a proposed project, and would, therefore, be a more reliable predictor of changes in exposure to mobile source air toxics. |
| 435 | **Title VI and Environmental Justice** | According to 46 *Federal Register* 18026 (March 23, 1981), the environmental impact statement 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 Code of Federal Regulations 771 Environmental Impact and Related Procedures or in the Federal Highway Administration Technical Advisory T 6640.8A Guidance for Preparing and Processing Environmental and Section 4(f) Documents to address releases of hazardous chemicals due to a transportation incident in National Environmental Policy Act documents for transportation projects like the proposed action. As discussed above, reasonably foreseeable actions are those that are likely to occur or probable, rather than those that are merely possible. If the proposed action is the Selected Alternative in the record of decision, planning for emergency situations would be initiated. If the plan is amended, it is made available to the Arizona Department of Transportation. The referenced populations are no more uniquely exposed to such an occurrence than other population segments within the Study Area. |
| 436 | **Public Involvement** | The Arizona Department of Transportation and Federal Highway Administration provided equal access to the public participation process to the Gila River Indian Community and its members. The Arizona Department of Transportation and Federal Highway Administration solicited input from the Gila River Indian Community and other Native American tribes and tribal members and considered fully the substantive input and comments that were received.<br><br>Chapter 2 of the Final Environmental Impact Statement is dedicated to explaining the Gila River Indian Community outreach undertaken for the project. The Gila River Indian Community was provided the same opportunities to participate in the project as all other populations and agencies.<br><br>The Arizona Department of Transportation advertisement efforts of the public hearing and public forums are documented in Chapter 6 of the Final Environmental Impact Statement beginning on page 6-23. The Gila River Indian Community Communication and Public Affairs Office informed the Arizona Department of Transportation that all communication and distribution of informational materials on Gila River Indian Community land would be handled by the Communication and Public Affairs Office. Advertisement text regarding the project, the public comment period, the public hearing, and the various ways for the public to submit comments regarding the South Mountain Freeway Draft Environmental Impact Statement was given to the Gila River Indian Community's Public Information Officer at the |

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| 437 | **Religious and Racial Discrimination and Civil Rights Violations**<br><br>Throughout the DEIS, it is acknowledged that the GRIC and other native American tribes hold *Muhadagi Doog* as a sacred site. From the actual language of the DEIS: "The South Mountains are highly valued and considered sacred by some Native American communities. The Community, which includes the Akimel O'odham (River Pima) and Pee Posh (Maricopa) tribes, and other Native American entities—including the Colorado River Indian Tribes and three O'odham groups: the Salt River Pima-Maricopa Indian Community, the Ak-Chin Community, and the Tohono O'odham Nation—consider the South Mountains to play a role in their cultures, identities, histories, and oral traditions."<br><br>There is plenty of correspondence in the DEIS and its Appendices in which the GRIC repeatedly asserts and reminds ADOT of this, to no avail. ADOT plans to blast *Muhadagi Doog*.<br><br>If we were to take a look at the same issue and frame it as a danger to a sacred site that plays a role in cultures, identities, histories, and oral traditions of a white, European-based religion, such as the Roman Catholic Church, we can illuminate how this is clearly religious discrimination, and likely racial discrimination. If Rome, Italy decided there needed to be a freeway that would go through the Vatican and take out just a very small part of the Sistine Chapel, that would be unthinkable to people of the Roman Catholic faith worldwide. Think of the outrage and outcry such a proposal would muster!<br><br>So what is the difference between the Roman Catholics' beliefs, and *Muhadagi Doog* and the "Native American entities?" Aside from the obvious differences in the race and number of people who practice the religions, the Sistine Chapel is located in Vatican territory. The Vatican is a separate political entity as is the GRIC, so the Vatican can prevent Rome from putting a highway through its territory just as the GRIC can prevent ADOT from putting one through its territory. But the borders of Indian Reservations were arbitrarily determined by white men, and South Mountain didn't happen to end up on the GRIC. So the only recourse of the Gila River and other tribes is to remind ADOT that South Mountain is sacred to them. ADOT acknowledges this but it suits their purpose to say they will just "mitigate it" as they build the SMF. |
| 438 | This attitude and planned action deliberately and intentionally violates the civil rights of the "Native American entities." In a 1979 consultation on the issue, the United States commission on civil rights defined religious discrimination in relation to the civil rights guaranteed by the Fourteenth Amendment to the United States Constitution. [Section 1. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, |
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| 436 (cont.) | | Transportation Technical Team meeting on April 30, 2013. Two advertisements regarding the public hearing, information regarding the location and availability of the Draft Environmental Impact Statement, and a map of the alternatives was placed in the May 2013 monthly issue of the *Gila River Indian News*.<br><br>The Arizona Department of Transportation Community Relations distributed electronic notices (e-newsletters) through the Government Delivery system to over 12,000 constituents who voluntarily signed up for project alerts along Interstate 10 (Papago, Maricopa, and Santan Freeways). These electronic notices included notice of availability of the Draft Environmental Impact Statement (distributed on April 26, 2013); date of the public hearing (distributed on May 10, 2013); dates of the community forums (distributed on May 29, 2013); and notification in June regarding the close of the Draft Environmental Impact Statement public comment period. In addition, anyone who had attended a previous meeting regarding the proposed action and signed in received all of this information mailed individually. On May 6, 2013, 73,564 mailers were distributed to addresses within the Study Area.<br><br>The Arizona Department of Transportation provided vouchers for public hearing parking and for public transit to the hearing. For the first time in the State's history, a shuttle bus to the hearing was provided from six locations in the Phoenix area, including two on the Gila River Indian Community (Komatke Boys & Girls Club and the Governance Center in Sacaton). All ads provided telephone numbers and electronic contact information regarding information on the shuttle schedules and pick-up locations. |
| 437 | **Cultural Resources** | The cultural and religious places of importance, like the South Mountains, are acknowledged in the Draft Environmental Impact Statement in several locations, notably pages 4-132 and 5-26. The proposed project would accommodate and preserve (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 Draft 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 Gila River Indian Community. |
| 438 | **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 ongoing, open consultation 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 and that could be affected by construction of the proposed freeway. 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, *Cultural Resources*, beginning on page 4-140 of the Final Environmental Impact Statement and pages 5-26 through 5-28. |

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| 438 | without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.]<br><br>As for racial discrimination, the equal protection clause was originally added to deal with the lack of equal protection provided by law to all in the course of administering justice in the states that had Black codes.<br><br>The United States commission on civil rights noted, "Whereas religious civil liberties, such as the right to hold or not to hold a religious belief, are essential for Freedom of Religion (in the United States secured by the First Amendment), religious discrimination occurs when someone is denied "the equal protection of the laws, equality of status under the law, equal treatment in the administration of justice, and equality of opportunity and access to employment, education, housing, public services and facilities, and public accommodation because of their exercise of their right to religious freedom." |
| 439 | Also, the American Indian Religious Freedom Act (AIRFA) is a US federal law and a joint resolution of Congress that was passed in 1978. It was created to protect and preserve the traditional religious rights and cultural practices of American Indians, Eskimos, Aleuts and Native Hawaiians. These rights include, but are not limited to, access of sacred sites, repatriation of sacred objects held in museums, freedom to worship through ceremonial and traditional rites, including within prisons, and use and possession of objects considered sacred. The Act required policies of all governmental agencies to eliminate interference with the free exercise of Native religion, based on the First Amendment, and to accommodate access to and use of religious sites to the extent that the use is practicable and is not inconsistent with an agency's essential functions. It also acknowledged the prior violation of that right. |
| 440 439 | Clearly, the No Build Alternative is the only viable option that does not constitute a violation of the 14th Amendment to the Constitution and a violation of the AIRFA as any freeway alternative proposed in the DEIS of the SMF requires blasting away part of *Muhadagi Doog*. |
| | **Fiscal Impacts**<br><br>While the SMF would have little positive economic benefit for the state or its residents, it would have adverse economic impacts for numerous reasons, including:<br><br>• The loss of approximately one billion dollars in Federal Highway funds at least once right away, and possibly many times later on, because the increase in air pollution would cause exceedences of required standards<br>• The cost of constructing the SMF, which would end up being far more than the two billions dollars currently predicted by ADOT because of all the issues not properly analyzed in the DEIS<br>• The loss of value to State Trust Land 620<br>• The loss of taxes from destroyed homes<br>• The loss of revenue from affected HOAs |
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| 438 (cont.) | | 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. |
| 439 | **Cultural Resources** | The American Indian Religious Freedom Act, 42 United States Code Section 1996, provides a policy statement of the United States to "protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions of the American Indian . . . including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites."<br><br>The Arizona Department of Transportation and Federal Highway Administration complied with the policy stated in the American Indian Religious Freedom Act throughout the environmental impact statement process, as evidenced by consultation efforts, mitigation measures, and a discussion of cultural resources issues in the Draft Environmental Impact Statement. The study would not violate the American Indian Religious Freedom Act because, as stated above, members of the Gila River Indian Community would not be prohibited from continuing to practice their beliefs even if the project goes 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 mountain would be affected. |
| 440 | **Purpose and Need** | The No-Action Alternative would not satisfy the purpose and need of this important regional transportation project. The E1 Alternative, designed to mitigate impacts as discussed in the Draft Environmental Impact Statement, would not violate the American Indian Religious Freedom Act or the Fourteenth Amendment. |

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without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.]

As for racial discrimination, the equal protection clause was originally added to deal with the lack of equal protection provided by law to all in the course of administering justice in the states that had Black codes.

The United States commission on civil rights noted, "Whereas religious civil liberties, such as the right to hold or not to hold a religious belief, are essential for Freedom of Religion (in the United States secured by the First Amendment), religious discrimination occurs when someone is denied "the equal protection of the laws, equality of status under the law, equal treatment in the administration of justice, and equality of opportunity and access to employment, education, housing, public services and facilities, and public accommodation because of their exercise of their right to religious freedom."

Also, the American Indian Religious Freedom Act (AIRFA) is a US federal law and a joint resolution of Congress that was passed in 1978. It was created to protect and preserve the traditional religious rights and cultural practices of American Indians, Eskimos, Aleuts and Native Hawaiians. These rights include, but are not limited to, access of sacred sites, repatriation of sacred objects held in museums, freedom to worship through ceremonial and traditional rites, including within prisons, and use and possession of objects considered sacred. The Act required policies of all governmental agencies to eliminate interference with the free exercise of Native religion, based on the First Amendment, and to accommodate access to and use of religious sites to the extent that the use is practicable and is not inconsistent with an agency's essential functions. It also acknowledged the prior violation of that right.

Clearly, the No Build Alternative is the only viable option that does not constitute a violation of the 14th Amendment to the Constitution and a violation of the AIRFA as any freeway alternative proposed in the DEIS of the SMF requires blasting away part of *Muhadagi Doog*.

**Fiscal Impacts**

441 While the SMF would have little positive economic benefit for the state or its residents, it would have adverse economic impacts for numerous reasons, including:

442
- The loss of approximately one billion dollars in Federal Highway funds at least once right away, and possibly many times later on, because the increase in air pollution would cause exceedences of required standards
- The cost of constructing the SMF, which would end up being far more than the two billions dollars currently predicted by ADOT because of all the issues not properly analyzed in the DEIS
- The loss of value to State Trust Land 620
- The loss of taxes from destroyed homes
- The loss of revenue from affected HOAs

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| 441 | **Economics** | In 2004, the City of Phoenix hired Crystal and Company to perform an analysis of the fiscal, economic, and social impacts of three potential alignments for the South Mountain Freeway. Relative to the Preferred Alternative (W59 and E1 Alternatives), the analysts estimated that, at build-out, the proposed freeway would create over 86,400 jobs and result in annual sales and property tax receipts in excess of $86.5 million. The study estimated that build-out would take approximately 20 years from freeway completion.<br>The traveling public would also benefit from the proposed freeway. When considering travel time savings, this benefit averages approximately $200 million per year between 2020 and 2035 (see Table 4-27 on page 4-67 of the Final Environmental Impact Statement). |
| 442 | **Alternatives** | The contribution of mobile sources (traffic) to air quality in the Study Area is addressed beginning on page 4-58 of the Draft Environmental Impact Statement. The carbon monoxide and particulate matter ($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; therefore, no federal funding would be jeopardized.<br>Cost estimates for the proposed freeway, as described beginning on page 3-59 of the Draft Environmental Impact Statement, were developed in accordance with accepted engineering practices by professional engineers. The Arizona Department of Transportation, Federal Highway Administration, Maricopa Association of Governments, and their consultants have peer-reviewed the proposed project's cost estimates in terms of both the quantities and unit costs used in the estimates. In each case, the estimates were found to be reasonable and accurate.<br>The Arizona State Land Department would be compensated for the land acquired as part of freeway construction. The remaining land would continue to be valuable and might have increased value with the improved access provided by the proposed freeway.<br>Impacts on property and sales tax revenues are quantified in the section, *Economic Impacts*, beginning on page 4-46. These impacts would be inconsequential when considered in the context of total tax revenues the City of Phoenix now collects and anticipates collecting in the future.<br>Homeowners associations would be compensated for property acquired for construction of the freeway in accordance with State law.<br>The cost of relocating utilities is included in the total costs presented in the Draft Environmental Impact Statement.<br>It is assumed the reference to the superfund site is to the West Van Buren Water Quality Assurance Revolving Fund site. This site would not be affected by construction of the freeway.<br>The Arizona Department of Transportation is experienced with handling drainage and erosion because they are important issues on every construction project. To minimize these issues, standard practices would be employed with construction, operation, and maintenance of the proposed freeway.<br>Maintenance costs are considered in the project development and are planned in the Arizona Department of Transportation's budget. |

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| | • The cost of moving utilities from Pecos Road<br>• The cost of cleaning up one superfund site<br>• The cost of constantly dealing with issues related to drainage and erosion<br>• The cost of maintaining the freeway |
| 443 | **Overall Impact on Quality of Life**<br><br>The negative impact on the community of Ahwatukee Foothills cannot be overstated. The SMF would destroy the type of community that it currently is – one known for peace and quiet. The community has historically experienced a low crime rate, and this would be radically changed upward. Since Ahwatukee Foothills terrain rises away from Pecos Road, views and noise will affect homes up to one mile north of Pecos. Because of the traffic problems that would occur from forcing so much more traffic on arterial streets, response time of police and fire units would suffer significantly. Top-rated schools would very likely be downgraded because of a change in the character of the region. |
| 444 | Hundreds of people use Pecos Road for training, cycling, running, skating, etc. Pecos Road is also the site of an annual Senior Olympics Cycling event. They would all experience a loss of recreational opportunities. |
| 445 | During times of freeway accidents or maintenance, commercial vehicles, including hazmats, in addition to passenger vehicles would be routed onto adjacent neighborhood arterial streets. |
| | Overall, the impact of the SMF would have very little positive effect on traffic, air pollution, or people in the region. It would provide the people of Laveen and the O&D trucks in the area around 51st Avenue a conduit to I-10, but this could be accomplished by just building a spur freeway from I-10 West to Laveen. On the other hand, the overall negative effects of the SMF would be extreme for the GRIC, Ahwatukee Foothills, South Mountain, and the environment. This demands a selection of the No Build option for the SMF.<br><br>Respectfully submitted,<br><br>Patricia K. Lawlis<br>16426 S 2nd Place<br>Phoenix, AZ 85048<br>President, Protecting Arizona's Resources & Children (PARC)<br>Member, Phoenix Mountains Preservation Council (PMPC)<br>Member, Sierra Club<br>Member, Gila River Alliance for a Clean Environment (GRACE)<br><br>29 |

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| 443 | **Alternatives** | While the E1 Alternative is adjacent to largely residential areas of Ahwatukee Foothills Village (to the north), a freeway has been planned in this location for many years (see Final Environmental Impact Statement pages 4-17 and 4-21). Where existing residential uses are adjacent to the proposed freeway, noise mitigation would be implemented according to Arizona Department of Transportation policy (see page 4-91 of the Draft Environmental Impact Statement). The proposed freeway would not adversely affect north–south access because the land immediately south of Pecos Road is Gila River Indian Community land, with no existing north–south access. (See the E1 portion of Table 4-9, on page 4-27 Draft Environmental Impact Statement.)<br>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.<br>Average daily traffic volumes on freeways and arterial streets are projected to increase substantially in and adjacent to the Study Area between 2010 and 2035. Contrary to the statement in the comment, the Draft Environmental Impact Statement notes that the proposed freeway would avert the congestion anticipated on arterial roads. As noted in the Draft Environmental Impact Statement, "The No-Action Alternative would not alleviate projected increases in traffic volumes and congestion on the Interstate and regional freeway systems or on the local street network by the design year 2035. It would instead, lead to worsening traffic congestion and substantial related impacts" (see page S-8 of the Draft Environmental Impact Statement).<br>There is no evidence that the proposed facility would cause people to leave the area. The regions' benefits would remain, and improved access to residences and businesses would make them more desirable. |
| 444 | **Alternatives** | The main line of the E1 Alternative would not have a bicycle route as part of the design. Continuous east–west riding would be possible in the neighborhoods adjoining the alternative and along Chandler Boulevard. |
| 445 | **Traffic** | Emergency responders would address the construction of the proposed freeway by amending the local emergency response plan to include the facility. |

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- The cost of moving utilities from Pecos Road
- The cost of cleaning up one superfund site
- The cost of constantly dealing with issues related to drainage and erosion
- The cost of maintaining the freeway

**Overall Impact on Quality of Life**

The negative impact on the community of Ahwatukee Foothills cannot be overstated. The SMF would destroy the type of community that it currently is – one known for peace and quiet. The community has historically experienced a low crime rate, and this would be radically changed upward. Since Ahwatukee Foothills terrain rises away from Pecos Road, views and noise will affect homes up to one mile north of Pecos. Because of the traffic problems that would occur from forcing so much more traffic on arterial streets, response time of police and fire units would suffer significantly. Top-rated schools would very likely be downgraded because of a change in the character of the region.

Hundreds of people use Pecos Road for training, cycling, running, skating, etc. Pecos Road is also the site of an annual Senior Olympics Cycling event. They would all experience a loss of recreational opportunities.

During times of freeway accidents or maintenance, commercial vehicles, including hazmats, in addition to passenger vehicles would be routed onto adjacent neighborhood arterial streets.

446 Overall, the impact of the SMF would have very little positive effect on traffic, air pollution, or people in the region. It would provide the people of Laveen and the O&D trucks in the area around 51st Avenue a conduit to I-10, but this could be accomplished by just building a spur freeway from I-10 West to Laveen. On the other hand, the overall negative effects of the SMF would be extreme for the GRIC, Ahwatukee Foothills, South Mountain, and the environment. This demands a selection of the No Build option for the SMF.

Respectfully submitted,

Patricia K. Lawlis
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Member, Phoenix Mountains Preservation Council (PMPC)
Member, Sierra Club
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| 446 | **Alternatives** | The benefits of the proposed freeway in comparison with the No-Action Alternative are described throughout the Draft and Final Environmental Impact Statements.<br>According to 23 Code of Federal Regulations §771.111(f)," the action evaluated in the environmental impact statement must connect logical termini and be of sufficient length to address environmental matters on a broad scope...". The proposed action should satisfy the project need and should be considered in the context of the local area socioeconomics and topography, the future travel demand, and other infrastructure improvements in the area. A partial freeway from Interstate 10 (Papago Freeway) to Laveen Village is not feasible because it would not meet the proposed freeway's identified purpose and need.<br>The No-Action Alternative is included for detailed study in accordance with National Environmental Policy Act requirements to compare beneficial and adverse impacts of the action alternatives with those benefits and consequences (adverse impacts) of not proceeding with one of the action alternatives. (Impacts can occur through choosing to do nothing.) The No-Action Alternative would not satisfy the purpose and need of the proposed action (see page 3-40 of the Draft Environmental Impact Statement).<br>The Arizona Department of Transportation, with concurrence from the Federal Highway Administration, identified the W59 and E1 Alternatives as the Preferred Alternative. |

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**Additional Comments**

**Two**

Comment 1-10

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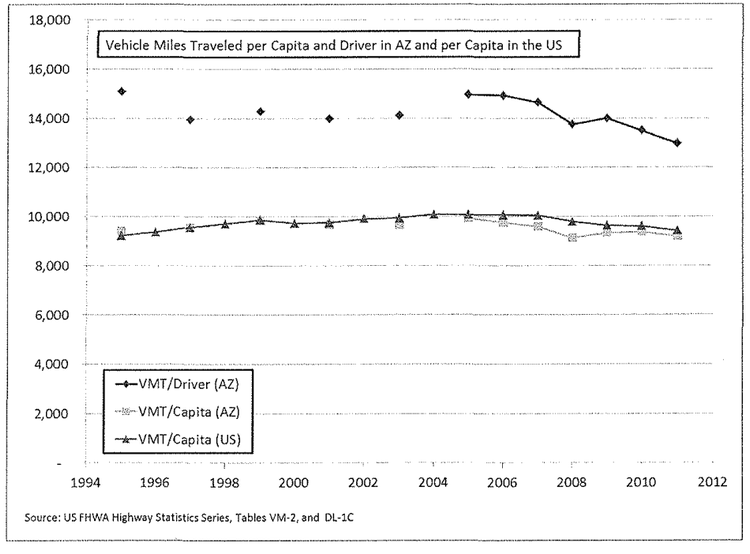
| 447 | **Comment 1.**<br>Figure 1-4 and MAG's travel projections seem to be just linear extensions of long-term trends. But trends in the last decade show stagnation in VMT growth even with population and before the economic downturn. The three figures below show the actual travel trends in Arizona and the United States since 1995. Note that stagnation in travel and declines of nearly 10% in per capita and per driver travel began before the 2008 recession. Recent data show little evidence of recovery in both total and urban travel in Arizona and show a continued decline in travel per capita. If these last decade's actual trends are projected out, there would be much slower growth in VMT in the long run. Thus, we strongly question the basic assumption upon which the entire proposed project rests – continued strong growth in vehicle travel. In fact, we must also question what data was used to develop the trend lines shown in Figure 1-4, since there has been no increase in VMT in Arizona in nearly seven years. It would appear that only the high growth years up until the mid-2000s were used, which seems highly questionable and inaccurate. With a small adjustment in projected growth, following more closely recent trends, we suspect much of the growth in congestion used to justify the project would be erased.<br>  <br><br>Source: US FHWA Highway Statistics Series, Tables VM-2, and DL-1C |

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| 447 | **Purpose and Need** | The information presented in Figure 1-4 and the complementary Figure 1-6 are based on historic Census data and Maricopa Association of Governments socioeconomic projections. The information is for Maricopa County, not Arizona and not the United States. The historical growth in the Maricopa Association of Governments region is discussed in the Draft Environmental Impact Statement, beginning on page 1-5. The critical factors such as available land, mild climate, affordable cost of living, and employment opportunities that led to the historical growth rates in the region remain unchanged.<br>In Maricopa County, daily vehicle miles traveled levels increased by almost 2 percent between 2011 and 2012 and the 2012 daily vehicle miles traveled is approaching the prerecession peak in 2007. (*Source*: Arizona Department of Transportation Multimodal Planning Division Highway Performance Monitoring System Data for the calendar years 2012 and 2011).<br>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.<br>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. The purpose and need and analysis of alternatives were updated and reevaluated using these new socioeconomic projections and corresponding projections related to regional traffic. While new projections based on the 2010 Census showed a lower anticipated population and vehicle miles traveled in 2035 than the previous projections, the conclusions reached in the Draft Environmental Impact Statement were validated in the Final Environmental Impact Statement (see Chapter 3, *Alternatives*). The traffic analysis demonstrated that the proposed project is needed today and will continue to be needed into the future. |

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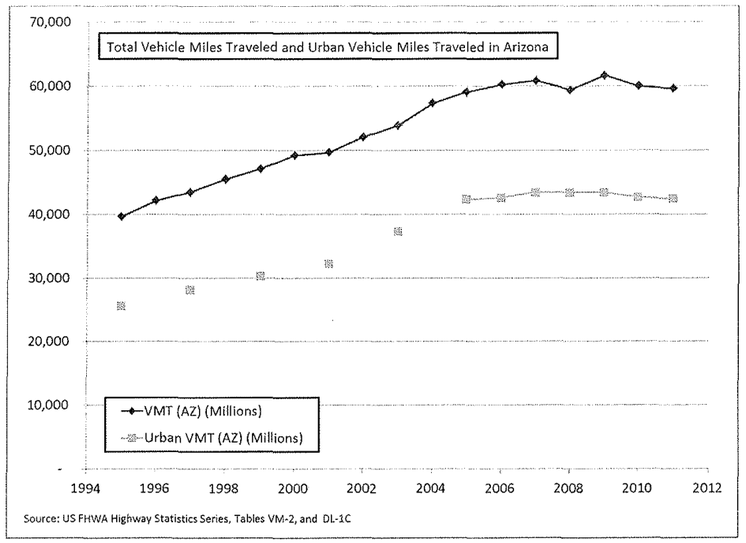
| 447 |  |



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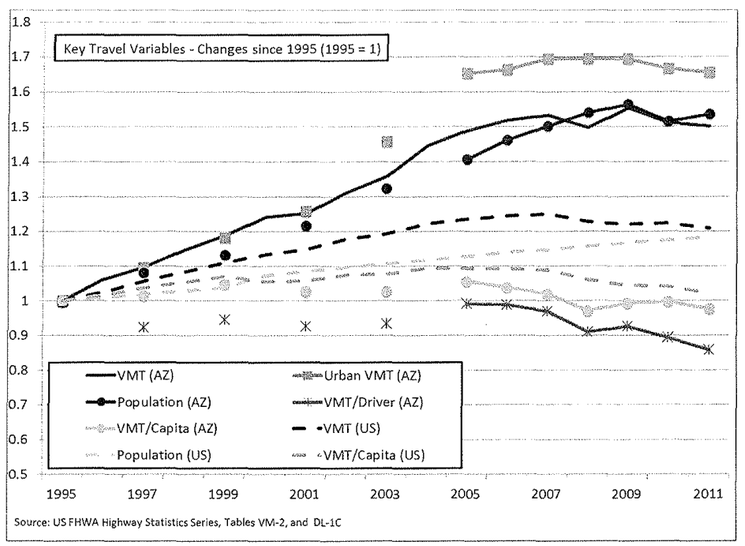


448

### Comment 2

Figure 1-2 – Many of the "Existing freeways" were under construction or still in planning? (SR-202, northern parts of 101?)

449

### Comment 3

Figure 1-5. Are 2035 projections for population locations/growth based on actual permitting of housing units, or just on land potentially available for development?

450

### Comment 4

Figure 1-7. How do the growth projections depend on the project implementation? Meaning, without the freeway, congestion in the west valley may limit growth there. Does housing permits in the west valley assume the freeway will be built? Just because they assumed there would be congestion relief doesn't mean the freeway needs to be built. Without the freeway, growth will just happen somewhere

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| 448 | **Purpose and Need** | While portions of State Route 202L (Red Mountain and Santan freeways) were not completed in 2003, they would be completed prior to the start of the planning horizon for the *Regional Transportation Plan* (2006 to 2026). Therefore, they were considered existing facilities during the development of the *Regional Transportation Plan*. |
| 449 | **Purpose and Need** | The 2035 projections for population are from the Maricopa Association of Governments socioeconomic projections. These projections are adopted by the Maricopa Association of Governments Regional Council to support transportation studies such as the South Mountain Freeway Draft Environmental Impact Statement. Projections are based on regional growth control totals allocated to subregions based on planned land use and existing land use patterns.<br>Basing 2035 population on actual permitting of housing units would not provide an accurate picture of future population for the horizon year, as permits are typically acquired at the time of construction. |
| 450 | **Purpose and Need** | Growth projections for 2035 are not predicated on specific transportation improvements; rather, they are based on future land use plans, as envisioned by their respective jurisdictions. With few exceptions, land in the Study Area is privately owned; zoning requests to develop private land are typically based on these land use plans. In Phoenix in particular, development is occurring regardless of the proposed freeway. Not building the proposed freeway would not likely cause development to go elsewhere, and congestion on the arterial street network and existing freeways would continue to worsen with the No-Action Alternative. |

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| | else. With the freeway, on the other hand, may induce cities to permit more housing in outlying areas, which may reduce the project's effectiveness (induced demand). |
| 451 | **Comment 5**<br>Table 3-2. Valley Metro is reportedly studying a light rail connection from Ahwatukee to Central Phoenix via Central south to Baseline to 48th Street south. The current project site is here: http://www.valleymetro.org/projects_and_planning/project_detail/south_central<br>This doesn't mention the extension south to Ahwatukee, but there are rumors it could eventually make that connection. |
| 452 | **Comment 6**<br>Table 3-2 and Page 3-6. The Phoenix General Plan is being currently updated from the year-2000 general plan (the last one approved). It may include significant transit oriented land use requirements. ADOT just completed a study which showed that land use can have a very significant impact on travel. http://www.ssti.us/wp/wp-content/uploads/2012/05/AZ-LandUseandTrafficCongestion2012.pdf |
| 453 | **Comment 7**<br>Table 3-2. The non-freeway alternatives may each alone not have a large potential, but there may be synergistic effects between them when deployed together. For instance, TDM programs, along with new transit options may reinforce each other. |
| 454 | **Comment 8**<br>Figure 1-1 – missing outline of South Mountain park preserve. |
| 455 | **Comment 9**<br>Page 3-34. "Time savings would be experienced during peak travel times of the day. Taken individually, savings may not appear to be substantial, but when considered in the context of the hundreds of thousands of drivers, each day, over the course of numerous years, the cumulative time savings would be substantial." Models show very small improvements in travel time for the average driver. To each driver the time savings is so small that it can hardly be called a real, measurable, benefit. The "total time savings" over the entire population is meaningless, since two people's time savings can't add up to be used for any benefit. |
| 456 | **Comment 10**<br>The section on fiscal impacts of the project, beginning on page 4-47, discusses changes in the tax base due to the conversion of land from tax-generating to transportation right of way. Another economic |

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| 451 | **Alternatives** | The project referenced is in study phases at Valley Metro. The project, as defined, would extend to Baseline Road. |
| 452 | | Comment noted. |
| 453 | **Alternatives** | As noted in Table 3-2, "*Nonfreeway Alternatives Considered and Reasons for the Elimination from Further Study*," elimination would not preclude the use of these elements in combination with the freeway mode. |
| 454 | **Alternatives** | It is not necessary to show the outline of Phoenix South Mountain Park/Preserve in the referenced figure because the map is a depiction of the Study Area and the regional context of the project. |
| 455 | **Alternatives** | The referenced information as presented in the Draft Environmental Impact Statement is based on analytical results. |
| 456 | **Neighborhoods/ Communities** | A review of the literature reveals few detailed and comprehensive analyses of the relationship between the 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, pages 138–47; "Impact of Highways on Property Values: Case Study of the Superstition Freeway Corridor"). A recent study by the California Department of Transportation concluded that freeway facilities did not substantially affect sales prices in residential areas adjacent to the facility. The study concluded that it is the visibility of the freeway that may influence selling price and not distance or noise. As a result, the researchers generally concluded that the more the visibility of a new freeway is reduced, the less it would determine the sales price of homes sold in the area. |

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| | impact of the freeway will be a de-valuation of residential properties near the right of way due to environmental nuisances (noise, air quality). We would like to see an estimate of this loss in property values and subsequent loss in tax base.<br><br>[NOTE: ADOT could respond that there are also increases in property values due to the freeway that they are not taking into account. But, since we are interested in negative impacts, there is still a need to account for declines in property values.] |

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## Additional Comments

### Three

Comments on DEIS Discussion of Section 4(F) of the Transportation Act

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| 457 | COMMENTS ON DEIS DISCUSSION OF SECTION 4(F) OF THE TRANSPORTATION ACT<br><br>The South Mountain 202 Draft EIS Section 4(f) Evaluation has not adequately analyzed Section 4(f) resources in SMPP, specifically the trails which are in the western end of the study area. It has erroneously dismissed Section 4(f) resources and has neglected the identification of other Section 4(f) resources.<br><br>Improper Elimination of a Section 4(f) Resource from the DEIS<br><br>The following section demonstrates how the DEIS erroneous disqualification Section 4(f) resources (trails) by applying the wrong information, having a lack of knowledge of the project area and the City of Phoenix. |
| 458 | In Appendix 5-1, on page A586, the DEIS attempts to disqualify the Section 4(f) trails in the SMPP by quoting a Goal from the Circulation Element of the General Plan: "Since approximately 40 percent of all trips are less than two mile in length, bicycling and walking can help relieve roadway congestion". The DEIS continues to state that since the General Plan indicates that pedestrian trials maintained by the City of Phoenix are used for transportation and that they are not primarily recreational.<br><br>It is incorrect to select the Circulation Element to qualify if the trails are for pedestrian or recreational use. The Circulation Element refers to trail/paths on the City Circulation (streets/roads) System. The trails in South Mountain are not on roads or sidewalks and not part of the Circulation Element, they are in the park and are strictly recreational, they do not serve a transportation purpose. Thus they remain Section 4(f) resources to be analyzed for direct or constructive impacts.<br><br>The DEIS than uses the Recreation Element of the General Plan to assert that the City in cooperation with private developers is working to provide trails and therefore these trail are on private land and maintained by the developers and do not adhere to Section 4(f) protection. Again, the trails in South Mountain are not on private land they are on City of Phoenix public land. The National Trail, the Maricopa Trail, the Gila Trail, and the Bursera Trail are all within the park and as such are strictly recreational hiking and biking trails and they are ON public land. Thus they remain Section 4(f) resources to be analyzed for direct or constructive impacts. |
| 459 | The last paragraph on p. A586 implies that because the City gets Transportation Enhancement Activity (TEA) Funds to build trails, that the trails in South Mountain are built with TEA funds. This again is an erroneous statement. All the trails in the park fall under the purview of South Mountain and are referenced in the Open Space Element of the 2002 General Plan (P.291). These trails do not receive TEA funds, these trails are built and maintained with City of Phoenix Parks Department funds (some of which come from citizen bonds). |
| 457 | As you can see, the disqualification of trail in South Mountain based on the above assessment is inaccurate, far-reaching and just plain wrong. This shows a true lack of knowledge about the SMPP, the trails, Section 4(f) resources and a defensible analysis. Thus they remain Section 4(f) resources to be analyzed for direct or constructive impacts. |

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| 457 | **Section 4(f) and Section 6(f)** | The newest South Mountains trails, the Bursera and the Pyramid, are more than ¼ mile from the proposed freeway and are analyzed in the Final Environmental Impact Statement on page 5-9. The trails are within ¼ mile of the planned Chandler extension and residential development; however, these trails do not have noise-sensitive activities or viewshed characteristics that contribute to their importance as Section 4(f) recreational resources. Discovery of new information not presented in a Draft Environmental Impact Statement as it is published is not failure. Review by agencies and the public of a Draft Environmental Impact Statement equates to a review of a draft report to aid the agencies in making the document more objective and defensible. In this manner, the realization of new information, if such instances of new information are validated by the federal lead agency, permits the Arizona Department of Transportation and its representatives to defensibly embellish on the document's content. |
| 458 | **Section 4(f) and Section 6(f)** | Trails within Phoenix South Mountain Park/Preserve were not eliminated. City-owned trails within the park were considered collectively as part of the City-owned park. There are no direct or constructive uses of any trails within Phoenix South Mountain Park/Preserve (see discussion beginning on page 5-14 in the Final Environmental Impact Statement). |
| 459 | **Section 4(f) and Section 6(f)** | The comment refers to a statement on page A586 of the Appendix to the Draft Environmental Impact Statement. The statement is made in a section entitled, *City of Phoenix Trails System*, which refers to the overall trails system of the City. It is also contained in a section discussing overall eligibility of trails to protection under Section 4(f). No reference to the trails within South Mountain Park/Preserve appears in this statement and there is no attempt to exclude South Mountain Park/Preserve Trails from consideration under Section 4(f).<br>The discussion of resources afforded protection under Section 4(f) contains an analysis of the trails of the South Mountain Park/Preserve (see discussion beginning on page 5-14 of the Final Environmental Impact Statement). |

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460

Lack of Identification of Section 4(f) Resources

The DEIS does not represent the existing conditions in the SMPP relative to the trails. As with many parts of the DEIS, the existing conditions and environmental consequences were authored in 2006-2008 and have not been updated. It is clear from the correspondence in the Appendix that HDR/ADOT has not revisited the study area to document the change in conditions which have occurred.

461

In 2011, the City of Phoenix constructed two new trails in the west end of SMPP. They are accessed by the future 19th Ave trailhead at the end of Chandler Blvd. The trails go west and east on the Main South Ridge. They are called the Bursera Trail and the Pyramid Trail. Additionally another trail exists in the area. It is called the Gila Trail and has been in use and recognized by the City of Phoenix for over 12 years (all identified on Google maps and Google Earth). None of these three trails are mentioned and documented in the DEIS. This is noteworthy as in Chapter 5, p 5-25 the following statement is made: "The cuts would be located in a remote portion of SMPP, not near any trail and barely visible from any of the more readily used trails."

462

Below is a picture taken from the Bursera Trail, high on the ridge, and its view onto the Main Ridge North were the proposed freeway will cut. It is obvious from the picture below that the above statement is no longer true.

463

As you can see, the DEIS has missed identifying three Section 4(f) resources, it has also incorrectly analyzed the impact to any Section 4(f) resources in the west end of SMPP. While there will not be a

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| 460 | **Section 4(f) and Section 6(f)** | The newest South Mountains trails, the Bursera and the Pyramid, are more than ¼ mile from the proposed freeway and are analyzed in the Final Environmental Impact Statement on page 5-9. The trails are within ¼ mile of the planned Chandler extension and residential development; however, these trails do not have noise-sensitive activities or viewshed characteristics that contribute to their importance as Section 4(f) recreational resources. |
| 461 | **Section 4(f) and Section 6(f)** | The newest Phoenix South Mountain Park/Preserve trails, the Bursera and Pyramid, have been included in an updated trails map in the Final Environmental Impact Statement. Visual analysis maintains that the cuts would be located in a remote portion of Phoenix South Mountain Park/Preserve, not near any trail and barely visible from any of the more readily used trails. City-owned trails within the park were considered collectively as part of the City-owned park. Discussions with the South Mountain Ranger indicate that the Gila Trail—although well-defined—is not a designated trail within the park. There are no direct or constructive uses of any trails within Phoenix South Mountain Park/Preserve. |
| 462 | **Visual Resources** | Visual analysis establishes that the proposed cuts would be in a remote portion of Phoenix South Mountain Park/Preserve, not near any trail, and would be barely visible from any of the more readily used trails. From the view provided, one can also see the development along 51st Avenue. The South Mountains provide views of urban Phoenix, including its freeways. |
| 463 | **Section 4(f) and Section 6(f)** | There is no constructive use of the trails within Phoenix South Mountain Park/Preserve, including the ones the comment mentions. The trails are within ¼ mile of the planned Chandler extension and residential development; however, these trails do not have noise-sensitive activities or viewshed characteristics that contribute to their importance as Section 4(f) recreational resources. Although cuts could be seen, this would not render the trail unusable for recreational purposes. |

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| | direct use of these trails, there will clearly be a constructive use of these trails. It is tragic that the solitude, peacefulness and beauty experienced on these trails (old and new) will be so dramatically diminished by the proposed action. This must be include in a constructive use analysis |
| 464 | The Section 4(f) Evaluation is incomplete and filled with misstatements, therefore the analysis is deficient. Figure 5-6 needs to be amended to include the trails and developed measures to minimize harm. As a whole, this report needs to be amended and alternatives reevaluated to avoid impact and/or evaluate measures to minimize harm. |
| 465 | As an overall final editorial, it seems tragic that the process went out of its way to realign the proposed project to preserve other Section 4(f) resources (Hudson Farm, Barnes Diary Farm, and Hackin Farmstead, all on private property) when it is most certain they are only being preserved to be eventually demolished by future development, yet other Section 4(f) resources such as the trails in SMPP, which will be used by thousands of people for many years to come, are discounted, devalued and dismissed as an important protected resource. |
| 466 | Many of the statements in the Section 4(f) Evaluation are clearly pre-decisional and the evaluation was not done by or with a professional who understands the SMPP, its trail system or the City of Phoenix General Plan. This leads to a misleading analysis. The public uses the DEIS as a tool for information, yet the information is not only incomplete by wrong. The Section 4(f) Evaluation needs to be revised. |

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| 464 | **Section 4(f) and Section 6(f)** | Trails maps have been updated, and new trails are analyzed in the Final Environmental Impact Statement because they are within ¼ mile of the Chandler Extension (not the proposed freeway) (see page 5-9). Because none of the action alternatives or options would not incorporate land from the Section 4(f) resource, and would have no proximity impacts so severe that the protected activities, features, or attributes that qualifies the trails for protection under Section 4(f) are substantially impaired, no measures to minimize harm are warranted. |
| 465 | **Section 4(f) and Section 6(f)** | The process upon which Section 4(f) resources were identified and evaluated for feasible and prudent avoidance possibilities followed the rigorous procedural requirements as set forth in Federal Highway Administration Technical Advisory T 6640.8A Guidance for Preparing and Processing Environmental and Section 4(f) Documents and related guidance. The comment suggests trails in the South Mountain Park/Preserve would be subject to direct or constructive use; however, as shown in Chapter 5 of the Final Environmental Impact Statement, such use would be avoided by the proposed freeway. |
| 466 | **Section 4(f) and Section 6(f)** | Trails within Phoenix South Mountain Park/Preserve were not eliminated. City-owned trails within the park were considered collectively as part of the City-owned park. There are no direct or constructive uses of any trails within Phoenix South Mountain Park/Preserve (see discussion beginning on page 5-14 in the Final Environmental Impact Statement).<br>Trails maps have been updated, and new trails are analyzed in the Final Environmental Impact Statement because they are within ¼ mile of the Chandler Extension (not the proposed freeway) (see page 5-9). Because none of the action alternatives or options would not incorporate land from the Section 4(f) resource, and would have no proximity impacts so severe that the protected activities, features, or attributes that qualifies the trails for protection under Section 4(f) are substantially impaired, no measures to minimize harm are warranted.<br>The Section 4(f) evaluation in its entirety represents an exhaustive, comprehensive, objective, and meaningful effort in accordance with requirements of the law. Evaluation of each resource included active engagement of resource owners to clarify resource importance and use (extensive interaction with owner/operators of Section 4(f) resources is well documented in the Appendices of the Final Environmental Impact Statement).<br>The U.S. Department of the Interior [the agency with direct oversight of Section 4(f)] review of the Draft Environmental Impact Statement noted: "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" The complete letter can be found in Appendix 7, Volume III, on page B4 of the Final Environmental Impact Statement. The Section 4(f) evaluation was thorough and complete. |

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**Additional Comments**

**Four**

Reevaluate Purpose and Need Statement

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| 467 | **Reevaluate Purpose and Need Statement**<br><br>A Purpose and Need statement is meant to address a problem. The South Mountain 202 project is a solution looking for a problem. The 2012 Purpose and Need statement (P&N) in the South Mountain DEIS does not reflect the current problem. On p.1-1, Chapter 1 the following statement is made; "At the beginning of the EIS process, the need for a major transportation facility was reexamined to determine whether such a facility is still needed". This is a false statement as the projects need was not reevaluated under the existing and current conditions of 2010-2013. The P&N statement was developed over 8 years ago when the problem in the Valley was its cycle of rapid suburban growth and sprawl and automobile dependency and it is the same statement that is being currently used. The need for this major transportation facility has changed if the correct and current conditions/problems are reevaluated impartially without prejudice. The purported need for the South Mountain 202 is NOT based on the current need and current existing conditions/problems in the southwest Phoenix Metropolitan Area.<br><br>The P&N was not adequately reevaluated to reflect the growth trends and conditions which have developed in the last 5-8 years. The conclusions; that the completion of the South Mountain 202 Loop is necessary to meet an existing need is based on an inaccurate misrepresentation of the facts. This document dictates the solution by manipulating the P&N to portray that population growth, housing projections and transportation uses from 2004-2009 are relevant and applicable to the current transportation demands and needs of the Phoenix Metropolitan area.<br><br>The P&N in the DEIS is not based on most recent data. It does not reflect accurate growth projections, current social demands and economic development, and a change in transportation demand and patterns. The information used for the DEIS is based on outdated and limited information as the shifts have been dramatic in the last three years and very little primary data has been produced at this time to make accurate predictions and projections about the future growth and demands in the valley. The P&N is based on MAG data from 2005-2009 which is then used to project out to 2035. Any projection which uses data from 2005-2009 (because that is all that is available) to extrapolate growth projections does not capture and adjust accurately for what happened from 2008-till 2012. Census data from 2010 (and American Community Survey data from 2010-2011) has only limited value as a snap shot and cannot be used in comparison to the 2000 Census data. Not having access to relevant data is not a excuse for using or recycling old data and conclusions.<br><br>The data used does not accurately reflect what has and what will be happening to the valley growth patterns, employment and housing development. (p.1-2, Chapter 1 Purpose and Need). It errs by simply using the *historic* data to create future projections. It also relies on what cities have "guestimated" to be their future growth in population and housing starts (much of which is not reality based, but wishful thinking). Social scientists and demographers have been studying the valley and the southwest and have many relevant observations and projections. The valley is still in a period of dramatic change in its growth and recovery and the modeling that MAG uses does not reflect the relevant socioeconomic conditions that are evolving even as we speak (foreclosed real estate market driving speculative and rental acquisitions resulting in a change in homeownership patterns, change in state immigration legislation, more transient workforce which are not tied to homeownership, increase |

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| 467 | **Purpose and Need** | At the beginning of the environmental impact statement process, the need for a major transportation facility was reexamined to determine whether such a facility is still needed. Validation of those findings occurred throughout the entire environmental impact statement process. Analysis of the purpose and need for the proposed action followed National Environmental Policy Act and Federal Highway Administration implementing guidance on the subject matter and used state-of-the-practice analytical tools, as pointed out in Table 1-3, "Traffic Analysis Tools," on page 1-13 of the Draft Environmental Impact Statement. The results of the analysis determined that a transportation problem does exist and that problem will continue in the foreseeable future (see section, *Conclusions*, on page 1-21). As noted on page 3-1 in the section, *Reconfirm the Purpose and Need for the Proposed Action*, a continuous validation process was undertaken throughout the environmental impact statement process to ensure past conclusions in the environmental impact statement process remained valid.<br><br>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.<br><br>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. The purpose and need and analysis of alternatives were updated and reevaluated using these new socioeconomic projections and corresponding projections related to regional traffic. While new projections based on the 2010 Census showed a lower anticipated population and vehicle miles traveled in 2035 than the previous projections, the conclusions reached in the Draft Environmental Impact Statement were validated in the Final Environmental Impact Statement (see Chapter 3, *Alternatives*). The traffic analysis demonstrated that the proposed project is needed today and will continue to be needed into the future.<br><br>The Maricopa Association of Governments' control total for Maricopa County is consistent with the "ADOA—Medium Series."<br><br>The National Environmental Policy Act recognizes 1) that data and projections can change throughout the process, 2) that it is important for the process to account for those changes as they become available, and 3) a reasonable person could conclude that the updated information would lead to substantially different results that could affect the decision-making attributes of the National Environmental Policy Act. This guidance permits disciplinary experts to make study recommendations based on recognized expertise without having to "overstudy everything," thus maintaining the spirit and intent of National Environmental Policy Act directives on timely completion and flexibility in the process. Validation of information has occurred throughout the duration of the environmental impact statement process; the assessment of purpose and need for the proposed action is no different, and analytical validation is part of the Final Environmental Impact Statement. |

(Response 467 continues on next page)

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Reevaluate Purpose and Need Statement

A Purpose and Need statement is meant to address a problem. The South Mountain 202 project is a solution looking for a problem. The 2012 Purpose and Need statement (P&N) in the South Mountain DEIS does not reflect the current problem. On p.1-1, Chapter 1 the following statement is made; "At the beginning of the EIS process, the need for a major transportation facility was reexamined to determine whether such a facility is still needed". This is a false statement as the projects need was not reevaluated under the existing and current conditions of 2010-2013. The P&N statement was developed over 8 years ago when the problem in the Valley was its cycle of rapid suburban growth and sprawl and automobile dependency and it is the same statement that is being currently used. The need for this major transportation facility has changed if the correct and current conditions/problems are reevaluated impartially without prejudice. The purported need for the South Mountain 202 is NOT based on the current need and current existing conditions/problems in the southwest Phoenix Metropolitan Area.

The P&N was not adequately reevaluated to reflect the growth trends and conditions which have developed in the last 5-8 years. The conclusions; that the completion of the South Mountain 202 Loop is necessary to meet an existing need is based on an inaccurate misrepresentation of the facts. This document dictates the solution by manipulating the P&N to portray that population growth, housing projections and transportation uses from 2004-2009 are relevant and applicable to the current transportation demands and needs of the Phoenix Metropolitan area.

The P&N in the DEIS is not based on most recent data. It does not reflect accurate growth projections, current social demands and economic development, and a change in transportation demand and patterns. The information used for the DEIS is based on outdated and limited information as the shifts have been dramatic in the last three years and very little primary data has been produced at this time to make accurate predictions and projections about the future growth and demands in the valley. The P&N is based on MAG data from 2005-2009 which is then used to project out to 2035. Any projection which uses data from 2005-2009 (because that is all that is available) to extrapolate growth projections does not capture and adjust accurately for what happened from 2008-till 2012. Census data from 2010 (and American Community Survey data from 2010-2011) has only limited value as a snap shot and cannot be used in comparison to the 2000 Census data. Not having access to relevant data is not a excuse for using or recycling old data and conclusions.

468 The data used does not accurately reflect what has and what will be happening to the valley growth patterns, employment and housing development. (p.1-2, Chapter 1 Purpose and Need). It errs by simply using the *historic* data to create future projections. It also relies on what cities have "guestimated" to be their future growth in population and housing starts (much of which is not reality based, but wishful thinking). Social scientists and demographers have been studying the valley and the southwest and have many relevant observations and projections. The valley is still in a period of dramatic change in its growth and recovery and the modeling that MAG uses does not reflect the relevant socioeconomic conditions that are evolving even as we speak (foreclosed real estate market driving speculative and rental acquisitions resulting in a change in homeownership patterns, change in state immigration legislation, more transient workforce which are not tied to homeownership, increase

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| 467 (cont.) | | The reader is referred to Draft Environmental Impact Statement Chapter 3, *Alternatives*, and, specifically, the section, *Alternatives Development and Screening Process Conclusions*, beginning on page 3-26, noting "... a comprehensive set of alternatives including all modes was considered ... assurance that the screening process was an open process ... a logical, sequential, step-by-step process using data and expertise from multiple disciplines ..." to demonstrate all possibilities were considered. |
| 468 | **Purpose and Need** | 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. The purpose and need and analysis of alternatives were updated and reevaluated using these new socioeconomic projections and corresponding projections related to regional traffic. While new projections based on the 2010 Census showed a lower anticipated population and vehicle miles traveled in 2035 than the previous projections, the conclusions reached in the Draft Environmental Impact Statement were validated in the Final Environmental Impact Statement (see Chapter 3, *Alternatives*). The traffic analysis demonstrated that the proposed project is needed today and will continue to be needed into the future.<br>The Federal Highway Administration and the U.S. Environmental Protection Agency approved the air quality conformity determination that includes the Maricopa Association of Governments regional travel demand model that produced the traffic projections used in the traffic analysis for the project (see page 3-27 of the Draft Environmental Impact Statement). The model projects demand for multiple modes of travel, including automobile, bus, and light rail. Key model inputs used to forecast travel demand in the Study Area included socioeconomic data (based on land use plans and population and economic forecasts), the anticipated average number of vehicle trips within the region on a daily basis, the distribution of transportation modes used by travelers in the region, the capacity of the transportation infrastructure to accommodate regional travel, and the future transportation infrastructure. The project team used the most recent and reliable data available. The Draft Environmental Impact Statement (Chapter 1, *Purpose and Need*, and Chapter 3, *Alternatives*) provides more detail on the data inputs to the modeling effort and discussions of the assumptions used.<br>As noted in the comment, the Maricopa Association of Governments and Arizona Department of Transportation continually study the changes in travel trends and reflect these changes in their travel-generation modeling.<br>Any new information presented in the Final Environmental Impact Statement has been evaluated as to whether it constitutes a substantial change from the information presented in the Draft Environmental Impact Statement. The Federal Highway Administration and Arizona Department of Transportation have examined the data and analysis and have determined that a supplemental environmental impact statement is not warranted. |

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| | in gasoline prices and an increase in fuel efficiencies are creating new driving patterns, decrease in car ownership and VMT as well as an aging population resulting in less VMT, less vehicle ownership by new drivers and more multimodal usage resulting in less automobile VMT, and change in urban form and cites desire to develop a new urban communities). All of these are resulting in the increasing trend of less emphasis on freeways and moving cars and more emphasis on moving people and creating communities. This new national and regional shift is being discussed and acknowledged at all levels (including inside MAG and ADOT itself) yet this did not transfer to the P&N not the DEIS. Instead there is a recycle of the initial statement which is driven by old data and old projections and models. While traffic projections out to 2035 seem easy to conduct for transportation specialists, they are rarely based on anything but a historical perspective, and that has changed dramatically as the valley's growth has leveled off and the southwest as a whole is seeing a change in demographics. This DEIS P&N is the same statement which was introduced to the public in 2004-2005. It is no longer accurate, relevant, or timely and was not revisited thoroughly after the 2008 recession to reflect the different political and socioeconomic climate of the valley. The P&N continues to promote the same conclusions (need) "Build it so we can build more," and "We need freeways for economic development." This no longer reflects the conditions of a valley which began to constrict 4 years ago and is experiencing a change in its development and transportation needs. |
| 469 | Because the DEIS P&N is based on outdated and misrepresentational data, the analysis and the recommendations are inaccurate and misleading and reach improper conclusions. |
| 470 | While there are multiple problems to be fixed in the Valley metropolitan area: am and pm traffic congestion, reduction of pollution to meet federal air quality standards, need for efficient transportation systems, building a $2.1 billion freeway is NOT the solution to these problems. The solution is through regional planning, focused transportation solutions which respond to community needs, and alleviate of traffic congestion by reducing the induced traffic syndrome. |
| 471 | As a final commentary on the P&N: the RTP is a plan which should not be used to codify any ONE transportation project (p.1-2, Chapter 1 Purpose and Need). Residents approved the *plan* NOT one specific *project*. Plans can and should change to reflect the every changing needs of a community. Projects created over 25 years ago, are rarely if ever relevant and salient 30 years later. ADOT cannot justify building the South Mountain 202 by claiming it is in the plan, while they systematically transfer money away from other freeways that are in the plan (and thus NOT building projects that are in the RTP) as a means to build the 202. |
| 472 | The DEIS P&N needs to be meaningfully reevaluated as it claims in the opening pages in Chapter 1. This project needs to be reevaluated if there is a need for this project given the pertinent and relevant issues which the southwest valley is facing in this changing transportation environment. |

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| 469 | **Purpose and Need** | The Federal Highway Administration and the U.S. Environmental Protection Agency approved the air quality conformity determination that includes the Maricopa Association of Governments regional travel demand model that produced the traffic projections used in the traffic analysis for the project (see page 3-27 of the Draft Environmental Impact Statement). The model projects demand for multiple modes of travel, including automobile, bus, and light rail. Key model inputs used to forecast travel demand in the Study Area included socioeconomic data (based on land use plans and population and economic forecasts), the anticipated average number of vehicle trips within the region on a daily basis, the distribution of transportation modes used by travelers in the region, the capacity of the transportation infrastructure to accommodate regional travel, and the future transportation infrastructure.<br>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.<br>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. The purpose and need and analysis of alternatives were updated and reevaluated using these new socioeconomic projections and corresponding projections related to regional traffic. While new projections based on the 2010 Census showed a lower anticipated population and vehicle miles traveled in 2035 than the previous projections, the conclusions reached in the Draft Environmental Impact Statement were validated in the Final Environmental Impact Statement (see Chapter 3, *Alternatives*). The traffic analysis demonstrated that the proposed project is needed today and will continue to be needed into the future. |
| 470 | **Purpose and Need** | The proposed freeway is part of the *Regional Transportation Plan* for the Maricopa Association of Governments region. The *Regional Transportation Plan*, as described on pages 1-5 and 1-10 of the Final Environmental Impact Statement, addresses freeways, streets, transit, airports, bicycle and pedestrian facilities, freight, demand management, system management, and safety. The proposed freeway is only one part of the overall multimodal transportation system planned to meet the travel demand needs of the Maricopa Association of Governments region. |
| 471 | **Purpose and Need** | As stated in the subject heading referenced in the comment, the text referenced places the *Context of the Proposed Action in Current Regional Transportation Planning*; no text directly or indirectly codifies one transportation project in the *Regional Transportation Plan* as presented in the Final Environmental Impact Statement. |
| 472 | **Purpose and Need** | 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. |

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| 472 (cont.) | | 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. The purpose and need and analysis of alternatives were updated and reevaluated using these new socioeconomic projections and corresponding projections related to regional traffic. While new projections based on the 2010 Census showed a lower anticipated population and vehicle miles traveled in 2035 than the previous projections, the conclusions reached in the Draft Environmental Impact Statement were validated in the Final Environmental Impact Statement (see Chapter 3, *Alternatives*). The traffic analysis demonstrated that the proposed project is needed today and will continue to be needed into the future.<br>The National Environmental Policy Act recognizes 1) that data and projections can change throughout the process, 2) that it is important for the process to account for those changes as they become available, and 3) a reasonable person could conclude that the updated information would lead to substantially different results that could affect the decision-making attributes of the National Environmental Policy Act. This guidance permits disciplinary experts to make study recommendations based on recognized expertise without having to "overstudy everything," thus maintaining the spirit and intent of National Environmental Policy Act directives on timely completion and flexibility in the process. Validation of information has occurred throughout the duration of the environmental impact statement process; the assessment of purpose and need for the proposed action is no different, and analytical validation is part of the Final Environmental Impact Statement. |

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## Additional Comments

### Five

Lakewood Community Association's Concerns & Response to DEIS for Loop 202 (South Mountain Freeway) dated July 20, 2013.

| Code | Issue | Response |
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| Code | Comment Document |
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**LAKEWOOD COMMUNITY ASSOCIATION'S CONCERNS & RESPONSE TO DEIS FOR LOOP 202 (SOUTH MOUNTAIN FREEWAY)**

**Prepared for**

**Protect Arizona's Resources and Children (PARC), et al.**
**Phoenix, Arizona**

**by**
**Lakewood Community Association Board of Directors**
**July 20, 2013**

| Code | Issue | Response |
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| Code | Comment Document |
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| 473 | **Lakewood HOA's South Mountain Freeway Concerns:**<br><br>**1. Loss of Water from Community Water Wells:**<br><br>The lakes are a centerpiece of the Lakewood community, losing the existing groundwater well supply will have a significant negative impact on the entire community, which consists of approximately 2,800 units. With respect to the Foothills Community Association, the DEIS makes the statement that "It is assumed that a new well location could be found that would produce water comparable in quality and quantity to the acquired well, and that no change in the existing groundwater right would result." The Lakewood Community Association has an even greater dependence on water than the Foothills, and the DEIS statement ignores the significant difficulty that was originally encountered in finding a source of water when Lakewood was incorporated. It is unclear whether or not the loss of the existing well even could be replaced, regardless of costs. With the state of Arizona currently restricting or disallowing man-made lakes in new property development, it is also unclear whether or not municipal water could be used as a source. As a result of the loss of the lakes, the property values in Lakewood would be negatively impacted with grave consequences to the entire community. |
| 474 | In addition to financial impacts, there are environmental as well, migratory birds would no longer have Lakewood as a possible stopping point along their migration route, and the destruction of the natural riparian area south of Pecos will be a detriment to the wildlife in the area. |
| 475 | **2. Home Valuation**<br><br>A. Reduction in property values based health/environmental impacts such as air and noise pollution. |
| 476 | B. Substantial reduction in property values if access to water is hindered which could endanger the existence of the Lakes. The whole community is based on the existence and proximity to the Lakes. Current property values are based on a lake community and lifestyle.<br><br>C. Substantial reduction in property values for lake-front homes if Lakes are compromised by water access.<br><br>D. Ability to resell a Lakewood home would be deleteriously impacted due to air and noise pollution.<br><br>E. Freeway would disrupt a quiet and clean Lakewood environment which would drive property values lower.<br><br>F. Lost revenue to HOA from Lakewood home displacements would decrease community facilities and amenities causing downward pressure on property values.<br><br>G. Freeway would have negative lifestyle impacts which would reduce the value of living in Lakewood and thus cause home values to fall. Lifestyle impacts include reduced access to safe recreation like cycling and roller-blading around community roads due to increased and altered traffic. Freeway noise would also impact outdoor leisure and activities such as community picnics, swimming and outdoor dining.<br><br>H. Freeway could disrupt the reliable performance of the primary aquifer which supplies Lakewood with its water and thus Lakes. These disruptions could include deviations to surface and ground water flows which feed the aquifer. As this reliable source of water is endangered, the reliability of the Lakes and irrigation of community vegetation would be endangered. This would lead to negative impacts to lake recreation and appearance of the community. Ultimately, the existence of the Lakes themselves could be threatened. This would make Lakewood a much less attractive place to live and substantially decrease home and property valuation. |

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| 473 | **Water Resources** | Because of the public concern expressed during the environmental impact statement process, page 4-100 of the Draft Environmental Impact Statement, focuses on the Foothills Community Association to provide more details on the well acquisition, condition assessment, and replacement process used by the Arizona Department of Transportation. The Arizona Department of Transportation understands, and states on page 4-100 of the Draft Environmental Impact Statement, respectively, that finding a suitable location for a new well in this area may be difficult.<br><br>Depending on whether an action alternative were to become the Selected Alternative, it may be possible to keep certain wells in their current location, but move the well controls and associated piping to outside of the right-of-way. Such an analysis would be performed later in the design process. |
| 474 | **Water Resources** | The project would not adversely affect any of the artificial lakes and ponds along Pecos Road and, therefore, would not affect migratory birds using those water features. There are no natural riparian areas or riparian vegetation adjacent to Pecos Road; the vegetation growing along the drainage ditch on the southern side of Pecos Road would not be removed. |
| 475 | **Neighborhoods/ Communities** | The reader is referred to the section, *Social Conditions*, beginning on Final Environmental Impact Statement page 4-20, to learn about criteria applied when considering impacts on social conditions and what mitigation is under consideration. Mitigation measures proposed can be found throughout Chapter 4. These have direct application to the reduction of impacts that could affect certain definitions of quality of life.<br><br>As to property values and the effects of proximity of freeway, numerous studies have been done on the subject and in general, results have varied but with an underlying consensus that many variables contribute to property values.<br><br>A review of the literature reveals few detailed and comprehensive analyses of the relationship between the 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, pages 138–47; "Impact of Highways on Property Values: Case Study of the Superstition Freeway Corridor"). A recent study by the California Department of Transportation concluded that freeway facilities did not substantially affect sales prices in residential areas adjacent to the facility. The study concluded that it is the visibility of the freeway that may influence selling price and not distance or noise. As a result, the researchers generally concluded that the more the visibility of a new freeway is reduced, the less it would determine the sales price of homes sold in the area. |
| 476 | **Water Resources** | The procedure identified on page 4-100 of the Draft Environmental Impact Statement, defines the procedure that the Arizona Department of Transportation would use to replace adversely affected wells, and also identifies the general costs the Arizona Department of Transportation would incur to replace the lost water sources. As noted in this discussion, if it were necessary to provide replacement water instead of a new well, the Arizona Department of Transportation would, in negotiations with the well owner, include the difference between the costs of pumping the well and the costs of the new replacement water source. Which of these outcomes would take place would become known during the final design of the Selected Alternative, should an action alternative be selected. |

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| 477 | **Lakewood HOA's South Mountain Freeway Concerns:**<br><br>1. **Loss of Water from Community Water Wells:**<br><br>The lakes are a centerpiece of the Lakewood community, losing the existing groundwater well supply will have a significant negative impact on the entire community, which consists of approximately 2,800 units. With respect to the Foothills Community Association, the DEIS makes the statement that "It is assumed that a new well location could be found that would produce water comparable in quality and quantity to the acquired well, and that no change in the existing groundwater right would result." The Lakewood Community Association has an even greater dependence on water than the Foothills, and the DEIS statement ignores the significant difficulty that was originally encountered in finding a source of water when Lakewood was incorporated. It is unclear whether or not the loss of the existing well even could be replaced, regardless of costs. With the state of Arizona currently restricting or disallowing man-made lakes in new property development, it is also unclear whether or not municipal water could be used as a source. As a result of the loss of the lakes, the property values in Lakewood would be negatively impacted with grave consequences to the entire community.<br><br>In addition to financial impacts, there are environmental as well, migratory birds would no longer have Lakewood as a possible stopping point along their migration route, and the destruction of the natural riparian area south of Pecos will be a detriment to the wildlife in the area.<br><br>2. **Home Valuation**<br><br>A. Reduction in property values based health/environmental impacts such as air and noise pollution.<br><br>B. Substantial reduction in property values if access to water is hindered which could endanger the existence of the Lakes. The whole community is based on the existence and proximity to the Lakes. Current property values are based on a lake community and lifestyle.<br><br>C. Substantial reduction in property values for lake-front homes if Lakes are compromised by water access.<br><br>D. Ability to resell a Lakewood home would be deleteriously impacted due to air and noise pollution.<br><br>E. Freeway would disrupt a quiet and clean Lakewood environment which would drive property values lower.<br><br>F. Lost revenue to HOA from Lakewood home displacements would decrease community facilities and amenities causing downward pressure on property values.<br><br>G. Freeway would have negative lifestyle impacts which would reduce the value of living in Lakewood and thus cause home values to fall. Lifestyle impacts include reduced access to safe recreation like cycling and roller-blading around community roads due to increased and altered traffic. Freeway noise would also impact outdoor leisure and activities such as community picnics, swimming and outdoor dining.<br><br>H. Freeway could disrupt the reliable performance of the primary aquifer which supplies Lakewood with its water and thus Lakes. These disruptions could include deviations to surface and ground water flows which feed the aquifer. As this reliable source of water is endangered, the reliability of the Lakes and irrigation of community vegetation would be endangered. This would lead to negative impacts to lake recreation and appearance of the community. Ultimately, the existence of the Lakes themselves could be threatened. This would make Lakewood a much less attractive place to live and substantially decrease home and property valuation. |

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| 476 (cont.) | | Depending on whether an action alternative were to become the Selected Alternative, it may be possible to keep certain wells in their current location, but move the well controls and associated piping to outside of the right-of-way. Such an analysis would be performed later in the design process. |
| 477 | **Noise, Air Quality** | The reader is referred to the text box, "*Freeway Awareness*," beginning on Draft Environmental Impact Statement page 4-12, and the text box, "*If My Property Would Be Affected, Can ADOT Purchase the Land in Advance?*", on page 4-43. Property acquisition 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.<br><br>Environmental analyses and noise analyses conducted for and documented in the Draft Environmental Impact Statement comply with the Federal Highway Administration's regulations for implementing National Environmental Policy Act at 23 Code of Federal Regulations 771 and for conducting noise analyses at 23 Code of Federal Regulations 772. These issues are addressed in the Draft Environmental Impact Statement. Sensitive receivers for noise and air are already included in the air quality and noise analyses in accordance with State and federal guidance. The air quality assessment for the proposed freeway analyzed impacts from carbon monoxide and particulate matter ($PM_{10}$) and followed U.S. Environmental Protection Agency guidelines. 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 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.<br><br>According to the air quality analyses conducted for the proposed freeway, 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 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; therefore, no mitigation of these effects is required.<br><br>The noise analysis was also updated for the Final Environmental Impact Statement using most recent Federal Highway Administration and Arizona Department of Transportation policy and traffic projections provided by the Maricopa Association of Governments in August 2013. This updated analysis begins on page 4-88 of the Final Environmental Impact Statement. No substantial differences between the analyses presented in the Draft and the Final Environmental Impact Statements resulted. |

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## Lakewood HOA's South Mountain Freeway Concerns:

1. **Loss of Water from Community Water Wells:**

The lakes are a centerpiece of the Lakewood community, losing the existing groundwater well supply will have a significant negative impact on the entire community, which consists of approximately 2,800 units. With respect to the Foothills Community Association, the DEIS makes the statement that "It is assumed that a new well location could be found that would produce water comparable in quality and quantity to the acquired well, and that no change in the existing groundwater right would result." The Lakewood Community Association has an even greater dependence on water than the Foothills, and the DEIS statement ignores the significant difficulty that was originally encountered in finding a source of water when Lakewood was incorporated. It is unclear whether or not the loss of the existing well even could be replaced, regardless of costs. With the state of Arizona currently restricting or disallowing man-made lakes in new property development, it is also unclear whether or not municipal water could be used as a source. As a result of the loss of the lakes, the property values in Lakewood would be negatively impacted with grave consequences to the entire community.

In addition to financial impacts, there are environmental as well, migratory birds would no longer have Lakewood as a possible stopping point along their migration route, and the destruction of the natural riparian area south of Pecos will be a detriment to the wildlife in the area.

2. **Home Valuation**

A. Reduction in property values based health/environmental impacts such as air and noise pollution.

B. Substantial reduction in property values if access to water is hindered which could endanger the existence of the Lakes. The whole community is based on the existence and proximity to the Lakes. Current property values are based on a lake community and lifestyle.

C. Substantial reduction in property values for lake-front homes if Lakes are compromised by water access.

D. Ability to resell a Lakewood home would be deleteriously impacted due to air and noise pollution.

E. Freeway would disrupt a quiet and clean Lakewood environment which would drive property values lower.

478 F. Lost revenue to HOA from Lakewood home displacements would decrease community facilities and amenities causing downward pressure on property values.

479 G. Freeway would have negative lifestyle impacts which would reduce the value of living in Lakewood and thus cause home values to fall. Lifestyle impacts include reduced access to safe recreation like cycling and roller-blading around community roads due to increased and altered traffic. Freeway noise would also impact outdoor leisure and activities such as community picnics, swimming and outdoor dining.

480 H. Freeway could disrupt the reliable performance of the primary aquifer which supplies Lakewood with its water and thus Lakes. These disruptions could include deviations to surface and ground water flows which feed the aquifer. As this reliable source of water is endangered, the reliability of the Lakes and irrigation of community vegetation would be endangered. This would lead to negative impacts to lake recreation and appearance of the community. Ultimately, the existence of the Lakes themselves could be threatened. This would make Lakewood a much less attractive place to live and substantially decrease home and property valuation.

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| 477 (cont.) | | A review of the literature reveals few detailed and comprehensive analyses of the relationship between the 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, pages 138–47; "Impact of Highways on Property Values: Case Study of the Superstition Freeway Corridor"). A recent study by the California Department of Transportation concluded that freeway facilities did not substantially affect sales prices in residential areas adjacent to the facility. The study concluded that it is the visibility of the freeway that may influence selling price and not distance or noise. As a result, the researchers generally concluded that the more the visibility of a new freeway is reduced, the less it would determine the sales price of homes sold in the area. |
| 478 | **Acquisitions and Relocations** | Land acquisition and relocation assistance services for the project shall be available to all individuals without discrimination in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act). The Uniform Act provides uniform, fair, and equitable treatment of people whose property is impacted 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 the Arizona Department of Transportation'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 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.<br>There would be no home displacements in the Lakewood community. For other communities, the compensation to the homeowners' association is dependent on how the subdivision and/or homeowners' association is legally structured. |
| 479 | **Acquisitions and Relocations** | The reader is referred to the section, *Social Conditions*, beginning on Draft Environmental Impact Statement page 4-20, to learn about criteria applied when considering impacts on social conditions and what mitigation is under consideration. Mitigation measures proposed can be found throughout Chapter 4. These have direct application to the reduction of impacts that could affect certain definitions of quality of life.<br>As to property values and the effects of proximity of freeway, numerous studies have been done on the subject and, in general, results have varied but with an underlying consensus that many variables contribute to property values.<br>A review of the literature reveals few detailed and comprehensive analyses of the relationship between the 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, pages 138–47; "Impact of Highways on Property Values: Case Study of the Superstition Freeway Corridor"). A recent study by the California Department of Transportation concluded that freeway facilities did not substantially affect sales prices in residential areas adjacent to the facility. The study concluded that it is the visibility of the freeway that may influence selling price and not distance or noise. As a result, the researchers generally concluded that the more the visibility of a new freeway is reduced, the less it would determine the sales price of homes sold in the area. |

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| 478 | 3. **Home Displacement**<br>A. Freeway right-of-way could encroach on existing Lakewood homes requiring destruction of several family homes.<br>B. Local community neighborhoods within Lakewood would see a serious negative impact or cease to exist due to destruction of homes and relocation of neighbors.<br>C. Loss of community integrity and relationships, especially for small children separated from friends who would be forced to move away due to home displacement. |
| 481 | 4. **Lost Revenue to HOA**<br>A. Direct assessment revenue losses of $350/home per year for each home displaced.<br>B. Further loss of assessments if vacancy rate increases due to image of Lakewood being a less attractive place to live due to deleterious lifestyle impacts of the freeway.<br>C. Viscous cycle of revenue loss leading to reduction of community services leading to further revenue loss (as vacancy rates increase). |
| | 5. **Air Quality**<br>A. The air quality cause by increase traffic and trucks will decrease the air quality in our community and pose a serious health risk to the residents of the community. |
| | 6. **Traffic Flow and Increase Congestion**<br>A. Without access to the freeway at 32nd Street, there will be an increase in traffic flow and congestion between 24th Street and 40th Street within the Lakewood Community boundary. |
| | 7. **Increase in Noise from Freeway Traffic**<br>B. The noise level will dramatically increase due to the proximity of the freeway and the increase in traffic and trucks in and around our community. |
| | 8. **Loss of Access to Property South of Pecos**<br>A. The HOA owns land south of Pecos which the freeway will cut off any kind of access to. |
| | 9. **Water Retention Issues/Concerns**<br>A. The freeway will be changing the water run off patterns and cause water retention concerns. |
| | 10. **Loss of Bike Paths on Pecos**:<br>A. Our community members will no longer have access to the uniquely long, flat bike lane located on Pecos. |
| | 11. **Additional Stress on Deteriorating Surface Streets in Community**<br>A. The increase in traffic on the community's surface streets will only add additional stress on our already deteriorating city streets in the community. |

| Code | Issue | Response |
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| 480 | **Water Resources** | The procedure identified on page 4-100 of the Draft Environmental Impact Statement, defines the procedure that the Arizona Department of Transportation would use to replace adversely affected wells, and also identifies the general costs the Arizona Department of Transportation would incur to replace the lost water sources. As noted in this discussion, if it were necessary to provide replacement water instead of a new well, the Arizona Department of Transportation would, in negotiations with the well owner, include the difference between the costs of pumping the well and the costs of the new replacement water source.<br>Which of these outcomes would take place would become known during the final design of the Selected Alternative, should an action alternative be selected.<br>Depending on whether an action alternative were to become the Selected Alternative, it may be possible to keep certain wells in their current location, but move the well controls and associated piping to outside of the right-of-way. Such an analysis would be performed later in the design process. |
| 481 | **Acquisition and Relocation** | The reader is referred to the section, *Social Conditions*, beginning on page 4-20 of the Draft Environmental Impact Statement, to learn about criteria applied when considering impacts on social conditions and what mitigation is under consideration. Mitigation measures proposed can be found throughout Chapter 4. These have direct application to the reduction of impacts that could affect certain definitions of quality of life.<br>As to property values and the effects of proximity of freeway, numerous studies have been done on the subject and, in general, results have varied but with an underlying consensus that many variables contribute to property values.<br>A review of the literature reveals few detailed and comprehensive analyses of the relationship between the 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, pages 138–47; "Impact of Highways on Property Values: Case Study of the Superstition Freeway Corridor"). A recent study by the California Department of Transportation concluded that freeway facilities did not substantially affect sales prices in residential areas adjacent to the facility. The study concluded that it is the visibility of the freeway that may influence selling price and not distance or noise. As a result, the researchers generally concluded that the more the visibility of a new freeway is reduced, the less it would determine the sales price of homes sold in the area. |

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| | 3. Home Displacement<br>A. Freeway right-of-way could encroach on existing Lakewood homes requiring destruction of several family homes.<br>B. Local community neighborhoods within Lakewood would see a serious negative impact or cease to exist due to destruction of homes and relocation of neighbors.<br>C. Loss of community integrity and relationships, especially for small children separated from friends who would be forced to move away due to home displacement.<br>4. Lost Revenue to HOA<br>A. Direct assessment revenue losses of $350/home per year for each home displaced.<br>B. Further loss of assessments if vacancy rate increases due to image of Lakewood being a less attractive place to live due to deleterious lifestyle impacts of the freeway.<br>C. Viscous cycle of revenue loss leading to reduction of community services leading to further revenue loss (as vacancy rates increase). |
| 482 | 5. **Air Quality**<br>A. The air quality cause by increase traffic and trucks will decrease the air quality in our community and pose a serious health risk to the residents of the community.<br>6. Traffic Flow and Increase Congestion<br>A. Without access to the freeway at 32nd Street, there will be an increase in traffic flow and congestion between 24th Street and 40th Street within the Lakewood Community boundary.<br>7. Increase in Noise from Freeway Traffic<br>B. The noise level will dramatically increase due to the proximity of the freeway and the increase in traffic and trucks in and around our community.<br>8. Loss of Access to Property South of Pecos<br>A. The HOA owns land south of Pecos which the freeway will cut off any kind of access to.<br>9. Water Retention Issues/Concerns<br>A. The freeway will be changing the water run off patterns and cause water retention concerns.<br>10. Loss of Bike Paths on Pecos:<br>A. Our community members will no longer have access to the uniquely long, flat bike lane located on Pecos.<br>11. Additional Stress on Deteriorating Surface Streets in Community<br>A. The increase in traffic on the community's surface streets will only add additional stress on our already deteriorating city streets in the community. |

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| 482 | **Air Quality** | Air Quality analyses conducted for and documented in the Draft and Final Environmental Impact Statements complies with the Federal Highway Administration's regulations for implementing the National Environmental Policy Act at 23 Code of Federal Regulations 771. These issues are addressed in the Draft and Final Environmental Impact Statements. Sensitive receivers for air are already included in the air quality analyses in accordance with State and federal guidance. The air quality assessment for the proposed freeway analyzed impacts from carbon monoxide and particulate matter ($PM_{10}$) and followed U.S. Environmental Protection Agency guidelines. 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.<br>According to the air quality analyses conducted for the proposed freeway, 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 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.<br>40 Code of Federal Regulations Section 1500.1(b) also directs the Federal Highway Administration to focus its 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 toxics 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 toxics 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 South Mountain Freeway project, the mobile source air toxics emissions analysis for the Study Area found 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. 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 (see discussion beginning on page 4-77 of the Final Environmental Impact Statement). Like most highway projects that have received a mobile source air toxics emissions analysis, the South Mountain Freeway project would result in a negligible change to a very small component of overall cancer risk, and this risk is declining regardless of alternative. |

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| | 3. **Home Displacement**<br>A. Freeway right-of-way could encroach on existing Lakewood homes requiring destruction of several family homes.<br>B. Local community neighborhoods within Lakewood would see a serious negative impact or cease to exist due to destruction of homes and relocation of neighbors.<br>C. Loss of community integrity and relationships, especially for small children separated from friends who would be forced to move away due to home displacement.<br>4. **Lost Revenue to HOA**<br>A. Direct assessment revenue losses of $350/home per year for each home displaced.<br>B. Further loss of assessments if vacancy rate increases due to image of Lakewood being a less attractive place to live due to deleterious lifestyle impacts of the freeway.<br>C. Viscous cycle of revenue loss leading to reduction of community services leading to further revenue loss (as vacancy rates increase).<br>5. **Air Quality**<br>A. The air quality cause by increase traffic and trucks will decrease the air quality in our community and pose a serious health risk to the residents of the community. |
| 483 | 6. **Traffic Flow and Increase Congestion**<br>A. Without access to the freeway at 32nd Street, there will be an increase in traffic flow and congestion between 24th Street and 40th Street within the Lakewood Community boundary. |
| 484 | 7. **Increase in Noise from Freeway Traffic**<br>B. The noise level will dramatically increase due to the proximity of the freeway and the increase in traffic and trucks in and around our community. |
| 485 | 8. **Loss of Access to Property South of Pecos**<br>A. The HOA owns land south of Pecos which the freeway will cut off any kind of access to. |
| 486 | 9. **Water Retention Issues/Concerns**<br>A. The freeway will be changing the water run off patterns and cause water retention concerns. |
| 487 | 10. **Loss of Bike Paths on Pecos**:<br>A. Our community members will no longer have access to the uniquely long, flat bike lane located on Pecos. |
| 488 | 11. **Additional Stress on Deteriorating Surface Streets in Community**<br>A. The increase in traffic on the community's surface streets will only add additional stress on our already deteriorating city streets in the community. |

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| 483 | **Traffic** | The determination to not include an interchange at 32nd Street was made in coordination with the City of Phoenix (see Figure 3-8 on page 3-15 of the Final Environmental Impact Statement). The interchange would have displaced over 100 homes and would have been located near an existing high school.<br>In 2006, the City of Phoenix conducted a traffic circulation study to evaluate the impacts of the proposed freeway on the local street system, including the shift of access to Foothills Reserve and Calabrea from Pecos Road to Chandler Boulevard. The City study found no adverse effects on the local street system from the freeway (see Appendix 3-1 in the Final Environmental Impact Statement). |
| 484 | **Noise** | Noise analyses conducted for and documented in the Draft and Final Environmental Impact Statements comply with the Federal Highway Administration's regulations for implementing the National Environmental Policy Act at 23 Code of Federal Regulations 771 and for conducting noise analyses at 23 Code of Federal Regulations 772. These issues are addressed in the Draft and Final Environmental Impact Statement. Sensitive receivers for noise are already included in the noise analysis in accordance with State and federal guidance. As stated on page 4-82 of the Draft Environmental Impact Statement, over 220 sensitive receivers were evaluated from a traffic noise perspective. All of the receivers represent noise sensitive land uses in proximity to the proposed project; therefore, these receivers would have higher noise levels than the schools more distant from the proposed action. The noise analysis was also updated for the Final Environmental Impact Statement using most recent Federal Highway Administration and Arizona Department of Transportation policy and traffic projections provided by the Maricopa Association of Governments in August 2013. This updated analysis begins on page 4-88 of the Final Environmental Impact Statement. No substantial differences between the analyses presented in the Draft and the Final Environmental Impact Statements resulted. |
| 485 | **Acquisitions and Relocations** | Access to the land south of the proposed freeway would be maintained in a similar way as the access existing today. If reasonable access could not be maintained, the property might be subject to acquisition by the Arizona Department of Transportation in accordance with State law. |
| 486 | **Design** | Pecos Road drainage is designed as a pass-through system. In other words, water is allowed to drain along its natural existing pathway underneath the freeway and to Gila River Indian Community land.<br>If an action alternative were to become the Selected Alternative, the E1 Alternative would be constructed aboveground and the existing culverts would extend to pass drainage under the freeway. Pecos Road currently has numerous existing culvert crossings. Extending the existing culverts or upsizing the culverts would maintain or improve drainage flows. This would ensure that there would be no adverse flooding impacts to adjacent properties. (See pages 3-18, 4-98, and 4-107 of the Draft Environmental Impact Statement.) |
| 487 | **Design** | The main line of the E1 Alternative would not have a bicycle route as part of the design. Continuous east–west riding would be possible in the neighborhoods adjoining the alternative and along Chandler Boulevard. |
| 488 | **Traffic** | In 2006, the City of Phoenix conducted a traffic circulation study to evaluate the impacts of the proposed freeway on the local street system. The City study found no adverse effects on the local street system from the freeway (see Appendix 3-1 in the Final Environmental Impact Statement). |

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## Additional Comments

### Six

Comments of Nicoli V. Kuminoff on the DEIS for South Mountain Freeway, dated July 21, 2013

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July 21, 2013

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

RE: Comments on Draft EIS for South Mountain Freeway (FHWA-AZ-EIS-13-01-D)

Dear South Mountain Study Team,

I am writing to comment on the draft environmental impact statement (DEIS) you released for the Loop 2002 South Mountain Freeway study. As a professional economist, a parent of young children, and a resident of Phoenix, I am deeply concerned about your DEIS. Overall, I think the DEIS reflects an unwarranted bias toward building the freeway with the Pecos Road alignment. After careful review, I cannot help but think that the DEIS systematically overstates the benefits of building the freeway and systematically understates the negative externalities on safety and environmental quality. Furthermore, the DEIS should be forthright about the fact that the precise magnitudes of both the benefits and costs are uncertain. Yet the DEIS has an asymmetric treatment of uncertainty. Economic costs, such as the public health consequences of increased air pollution in Ahwatukee, are dismissed entirely because they are uncertain. Meanwhile, economic benefits, such as the projected reductions in congestion on the I-10, are falsely presented as certain outcomes, despite the deeply uncertain nature of such projections. Finally, the DEIS falls far short of established "best practices" for the analysis of public projects as defined by the U.S. Office of Management and Budget (Circular A-4) and the U.S. Environmental Protection Agency's *Guidelines for Preparing Economic Analysis* (2010). I think it would be highly irresponsible to proceed with building the freeway without first conducting a serious economic analysis that quantifies the benefits and costs, and fully addresses uncertainty.

Please find attached 12 specific comments that explain my concerns with selected aspects of your DEIS. I look forward to seeing your responses in the final EIS. I would be glad to clarify any of the issues I raise to your staff. Feel free to contact me with questions.

Best Regards,

Nicolai V. Kuminoff
kuminoff@gmail.com

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| 489 | **Purpose and Need** | At the beginning of the environmental impact statement process, the need for a major transportation facility was reexamined to determine whether such a facility is still needed. Validation of those findings occurred throughout the entire environmental impact statement process. Analysis of the purpose and need for the proposed action followed National Environmental Policy Act and Federal Highway Administration implementing guidance on the subject matter and used state-of-the-practice analytical tools, as pointed out in Table 1-3, "Traffic Analysis Tools," on page 1-13 of the Draft Environmental Impact Statement. The results of the analysis determined that a transportation problem does exist and that problem will continue in the foreseeable future (see section, *Conclusions*, on page 1-21). The comment implies that the freeway condition was predetermined. As noted on page 3-1 in the section, *Reconfirm the Purpose and Need for the Proposed Action*, a continuous validation process was undertaken throughout the environmental impact statement process to ensure past conclusions in the environmental impact statement process remained valid.<br>The social, environmental, and economic effects of all alternatives, including the No-Action Alternative, are presented in the Draft and Final Environmental Impact Statements. |

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| 490 | Comment #1: The DEIS implies that a majority of Maricopa County residents support building the proposed South Mountain Freeway without having any factual basis to support this implication. There are numerous examples of this, especially in the early chapters of the DEIS. One example is the "What do the results of Propositions 300 and 400 tell us" sidebar on page 1-9. The problem is that the proposed South Mountain Freeway was a fairly minor detail in the information provided to voters on the broader regional transportation plan. Voters have never had an opportunity to express their opinions on the South Mountain Freeway separately from other regional transportation projects that were bundled as part of these propositions and were in more immediate need of funding at the time the propositions were presented to voters. Furthermore, neither proposition provided voters with basic details on the South Mountain Freeway such as the expected construction cost and the number of lanes. Furthermore, at the time people voted on proposition 300 the town of Ahwatukee was largely undeveloped. Likewise, the regional transportation plan provided to voters as part of the Proposition 400 election of 2004 failed to anticipate the location, size, use, financial cost and social costs of building the freeway. It is also noteworthy that both votes occurred before the onset of the great recession. The bottom line is that there is no reason to expect that Maricopa county voters would support building the South Mountain Freeway, if they were given the opportunity to vote today. In addition, the question of whether or not voters liked the idea of a new freeway extension 30 years ago or 10 years ago is entirely irrelevant to the question of whether or not it makes sense to build the freeway today. |
| 491 | Comment #2: The effort to model the effect of the freeway on ambient concentrations of criteria air pollutants is inadequate and misleading. For example, the discussion of carbon monoxide (CO) in section 4-65 of the DEIS points out that impacts were modeled using information from Maricopa County's current network of air quality monitoring sites in the region. Yet the discussion fails to mention that Maricopa County does not have any air quality monitoring sites in the Ahwatukee foothills (http://alert.fcd.maricopa.gov/alert/Google/v3/air.html). This is a serious flaw in the modeling assessment because the prevailing wind patterns and foothills topography will likely cause most of the emissions of pollutants to be blown into pockets of |

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| 490 | **Public Involvement** | The section, *Summary of Past Agency and Public Involvement Pre-EIS Process*, outlines the outreach by the Maricopa Association of Governments and others since the 1980s over the South Mountain Freeway. In that outreach, through the development of the *Regional Transportation Plan*, people were provided opportunities to express concerns over the specifics of the proposed freeway as well as learn about the costs and design of the facility through the years. Construction cost estimates are subject to constant updates just as, for reasons noted in the comment, economic conditions are subject to change. The amount of funding set aside for the proposed action in the *Regional Transportation Plan* is in line with projected costs.<br>Regarding the sidebar on page 1-9 of the Draft Environmental Impact Statement referenced in the comment, the text makes no reference to the proposed action. The comment asserts that the page 1-9 sidebar is an example of the Draft Environmental Impact Statement "implying that a majority of Maricopa County residents supports building the proposed freeway."<br>The sidebar referenced says 1) there is "continued public support for investment in regional transportation projects," 2) "voters in 90 percent of the county's 1,058 voting precincts voted in favor of Proposition 400 and the projects it would fund," and 3) "voters in 81 percent of the 31 voting precincts in the Study Area favored Proposition 400 and the projects it would fund." |
| 491 | **Air Quality** | The air quality assessment for impacts from carbon monoxide followed the U.S. Environmental Protection Agency guidelines in Guideline for Modeling Carbon Monoxide from Roadway Intersections (A-OAQPS, 1992). Inputs to the model were based on U.S. Environmental Protection Agency-recommended values or were selected to provide a conservative estimate of impacts. Modeling methodology and results were reviewed by the Federal Highway Administration, Arizona Department of Transportation, and Maricopa Association of Governments. 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 Part 93.123(a). 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. |

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| 492 | localized air pollution above residential neighborhoods in Ahwatukee in between the freeway and South Mountain Park.<br><br>Comment #3: Failure to model the impact of the freeway on ground level ozone concentrations above residential neighborhoods in Ahwatukee is a serious problem as emissions generated by the freeway may very well exceed national standards for 8-hour ambient ozone concentrations. As noted earlier, the prevailing wind patterns and topography of the region are likely to cause most of the emissions to sit in air pockets above residential neighborhoods in Ahwatukee. Furthermore, these neighborhoods are highly populated by families with young children who are identified by the Environmental Protection Agency as being a "sensitive group" with respect to ozone (Federal Registrar, Vol. 64, No. 149, Wednesday, August 4, 1999, Rules and Regulations).<br><br>Comment #4: The lack of air quality monitors in the Ahwatukee foothills area undermines the credibility of the entire air quality assessment provided in the DEIS. Air quality monitors are needed to inform the assessment of potential effects of the freeway on air quality. The current assessment does not make a serious attempt to model air quality impacts in Ahwatukee, which contains the neighborhoods that will experience the largest negative effects of increased air pollution generated by the freeway.<br><br>Comment #5: The DEIS's overall conclusion that building the freeway will not cause an increase in violations of federal ambient air quality standards is misleading. This conclusion simply exploits the current placement of air quality monitors. By providing an incentive for truckers and non-local drivers to avoid traveling through central Phoneix, the South Mountain freeway will divert air pollution away from the areas that have air quality monitors and into areas that do not have air quality monitors, such as the Ahwatukee foothills. Ambient air quality will surely worsen in Ahwatukee and may very well violate federal standards for the criteria pollutants. Of course this will not cause any violations if there are no air quality monitors to measure the violations. This highlights the need for a more serious assessment of air pollution impacts from the proposed freeway, and it also highlights the need to place air quality monitors at several locations in the Ahwatukee foothills.<br><br>3 |

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| 492 | **Air Quality** | As noted on page 4-76 of the Final Environmental Impact Statement, since ozone is a regional pollutant, there is no requirement to analyze potential impacts and no possibility of localized violations of ozone to occur at the project level. The Maricopa Association of Governments is responsible for developing plans to reduce emissions of ozone precursors in the Maricopa area. The Preferred Alternative is included in the *Regional Transportation Plan* that has been determined by the U.S. Department of Transportation to conform to the State Implementation Plan on February 12, 2014.<br><br>A common theme in public comments on the proposed project has been the potential impacts of the project on children's health, primarily through vehicle emissions and noise. Many commenters raised concerns about the proximity of the project to schools or other aspects of the project that may affect children. In addition, the U.S. Environmental Protection Agency requested that the Final Environmental Impact Statement address Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*.<br><br>Throughout the Final 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 Final Environmental Impact Statement incorporates an assessment of the potential impacts of the proposed project on all populations, including children. The Final Environmental Impact Statement addresses potential impacts of the project on children in the Chapter 4 environmental consequences analyses.<br><br>The U.S. Environmental Protection Agency's Toxicity and Exposure Assessments for Children's Health report (see page 4-73 of the Final Environmental Impact Statement) 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. It mentioned children when identifying the effects of acute exposure to naphthalene. The Final Environmental Impact Statement acknowledges and fully discloses public scoping comments that raised the topic of health effects on neighborhoods and adjacent schools (see page 4-31 of the Final Environmental Impact Statement).<br><br>The Final Environmental Impact Statement evaluates Clean Air Act criteria air pollutant concentrations in Maricopa County and the Phoenix area (see pages 4-75 to 4-77 of the Final Environmental Impact Statement). With regard to air quality impacts, the Final Environmental Impact Statement addresses children's health impacts within the broader discussion regarding health impacts under the National Ambient Air Quality Standards. Clean Air Act Section 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 Section 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 *Federal Register* 3086 and 3090) (quoting S. Rep. No. 91-1196, 91st Cong., 2 Sess. 10 [1970]) (alterations in original). Accordingly, the Final Environmental Impact Statement National Ambient Air Quality Standards-based evaluation of criteria air pollutants includes a health-based review of sensitive populations, including children, given the National Ambient Air Quality Standards inherent consideration |

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| | localized air pollution above residential neighborhoods in Ahwatukee in between the freeway and South Mountain Park.<br><br>Comment #3: Failure to model the impact of the freeway on ground level ozone concentrations above residential neighborhoods in Ahwatukee is a serious problem as emissions generated by the freeway may very well exceed national standards for 8-hour ambient ozone concentrations. As noted earlier, the prevailing wind patterns and topography of the region are likely to cause most of the emissions to sit in air pockets above residential neighborhoods in Ahwatukee. Furthermore, these neighborhoods are highly populated by families with young children who are identified by the Environmental Protection Agency as being a "sensitive group" with respect to ozone (Federal Registrar, Vol. 64, No. 149, Wednesday, August 4, 1999, Rules and Regulations). |
| 493 | Comment #4: The lack of air quality monitors in the Ahwatukee foothills area undermines the credibility of the entire air quality assessment provided in the DEIS. Air quality monitors are needed to inform the assessment of potential effects of the freeway on air quality. The current assessment does not make a serious attempt to model air quality impacts in Ahwatukee, which contains the neighborhoods that will experience the largest negative effects of increased air pollution generated by the freeway. |
| 494 493 | Comment #5: The DEIS's overall conclusion that building the freeway will not cause an increase in violations of federal ambient air quality standards is misleading. This conclusion simply exploits the current placement of air quality monitors. By providing an incentive for truckers and non-local drivers to avoid traveling through central Phoenix, the South Mountain freeway will divert air pollution away from the areas that have air quality monitors and into areas that do not have air quality monitors, such as the Ahwatukee foothills. Ambient air quality will surely worsen in Ahwatukee and may very well violate federal standards for the criteria pollutants. Of course this will not cause any violations if there are no air quality monitors to measure the violations. This highlights the need for a more serious assessment of air pollution impacts from the proposed freeway, and it also highlights the need to place air quality monitors at several locations in the Ahwatukee foothills. |
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| 492 (cont.) | | 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 *Federal Register* 3090).<br><br>Sensitive receivers for air and noise are already included in the air quality and noise analyses in accordance with State and federal guidance. Both sections, *Air Quality* and *Noise*, 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.<br><br>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 ($PM_{10}$) was presented in the Draft Environmental Impact Statement, a quantitative project-level particulate matter ($PM_{10}$) 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 (beginning on page xiii) and are more fully described beginning on page 4-68 of the Final Environmental Impact Statement. 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. Through analysis, the Federal Highway Administration has determined that the proposed project would not produce disproportionate impacts on children. |
| 493 | **Air Quality** | Data from various Maricopa County Air Quality Department monitoring sites were used in the air quality analyses. Siting, operation, and recording information from monitoring sites are the responsibility of the Maricopa County Air Quality Department. See <maricopa.gov/aq/>. The monitoring information used in the air quality analyses is discussed in greater detail in the air quality technical report prepared for the project which is available on the project Web site at <azdot.gov/southmountainfreeway>. The results of the analyses are summarized in the Final Environmental Impact Statement. |
| 494 | **Air Quality** | The air quality assessment for impacts from carbon monoxide followed the U.S. Environmental Protection Agency guidelines in Guideline for Modeling Carbon Monoxide from Roadway Intersections (A-OAQPS, 1992). Inputs to the model were based on U.S. Environmental Protection Agency-recommended values or were selected to provide a conservative estimate of impacts. Modeling methodology and results were reviewed by the Federal Highway Administration, Arizona Department of Transportation, and Maricopa Association of Governments. Included in the analyses are data on the proposed vehicles using the proposed freeway, including heavy trucks. |

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| 495 | Comment #6: Pages 4-69 and 4-70 provide a deeply flawed rationale for ignoring the impact of the freeway on human health outcomes. The DEIS claims that decision makers should not be provided with information on health outcomes of building the freeway because the magnitudes of those outcomes are judged by DOT to be highly uncertain. I will explain three problems with this logic:<br><br>A. Ignoring uncertainty violates federal standards for evaluating public projects, as outlined by the United States Office of Management and Budget's Circular A-4 (http://www.whitehouse.gov/omb/circulars_a004_a-4) and the United States Environmental Protection Agency's *Guidelines for Preparing Economic Analysis*. For example, OMB Circular A-4 has a special section devoted to the appropriate treatment of uncertainty in the evaluation of public projects. It clearly states that uncertainty outcomes should be quantified and this information should be provided for public review and to decision makers. For example, it instructs analysts involved in the preparation of impact statements that "*the important uncertainties connected with your regulatory decisions need to be analyzed and presented as part of the overall regulatory analysis*" and that "*by assessing the sources of uncertainty and the way in which benefit and cost estimates may be affected under plausible assumptions, you can shape your analysis to inform decision makers and the public about the effects and the uncertainties of alternative regulatory actions*" and that "*wherever possible, you should use appropriate statistical techniques to determine a probability distribution of the relevant outcome.*" It also states that "*when uncertainty has significant effects on the final conclusion about net benefits, your agency should consider additional research prior to rulemaking. The cost of being wrong may outweigh the benefits of a faster decision. This is true especially for cases with irreversible or large upfront investments.*"<br><br>B. The South Mountain Freeway is likely to have large negative health effects. The large impacts of air pollution on morbidity and mortality are well documented as is the fact<br><br>4 |

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| 494 (cont.) | | 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 Part 93.123(a). The carbon monoxide analysis was updated in the Final Environmental Impact Statement. Although a qualitative analysis of particulate matter ($PM_{10}$) was presented in the Draft Environmental Impact Statement, a quantitative project-level particulate matter ($PM_{10}$) 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. |
| 495 | **Air Quality, Health Risk Assessment** | The carbon monoxide analysis was updated in the Final Environmental Impact Statement. Although a qualitative analysis of particulate matter ($PM_{10}$) was presented in the Draft Environmental Impact Statement, a quantitative project-level particulate matter ($PM_{10}$) 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. 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.<br><br>The emission modeling developed for the proposed action showed 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. 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 (see discussion beginning on page 4-77 of the Final Environmental Impact Statement).<br><br>**The Role of Health Risk Assessment in a National Environmental Policy Act Context**<br><br>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 |

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| **495** (cont.) | | 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.<br>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:<br>*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.*<br>*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.*<br>*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.*<br>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 |

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| **495** (cont.) | | 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.<br>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).<br>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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| **495** (cont.) | | As described 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.<br>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).<br>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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| **495** (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.<br><br>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. |

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Comment #6: Pages 4-69 and 4-70 provide a deeply flawed rationale for ignoring the impact of the freeway on human health outcomes. The DEIS claims that decision makers should not be provided with information on health outcomes of building the freeway because the magnitudes of those outcomes are judged by DOT to be highly uncertain. I will explain three problems with this logic:

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A. Ignoring uncertainty violates federal standards for evaluating public projects, as outlined by the United States Office of Management and Budget's Circular A-4 (http://www.whitehouse.gov/omb/circulars_a004_a-4) and the United States Environmental Protection Agency's *Guidelines for Preparing Economic Analysis*. For example, OMB Circular A-4 has a special section devoted to the appropriate treatment of uncertainty in the evaluation of public projects. It clearly states that uncertainty outcomes should be quantified and this information should be provided for public review and to decision makers. For example, it instructs analysts involved in the preparation of impact statements that "*the important uncertainties connected with your regulatory decisions need to be analyzed and presented as part of the overall regulatory analysis*" and that "*by assessing the sources of uncertainty and the way in which benefit and cost estimates may be affected under plausible assumptions, you can shape your analysis to inform decision makers and the public about the effects and the uncertainties of alternative regulatory actions*" and that "*wherever possible, you should use appropriate statistical techniques to determine a probability distribution of the relevant outcome.*" It also states that "*when uncertainty has significant effects on the final conclusion about net benefits, your agency should consider additional research prior to rulemaking. The cost of being wrong may outweigh the benefits of a faster decision. This is true especially for cases with irreversible or large upfront investments.*"

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B. The South Mountain Freeway is likely to have large negative health effects. The large impacts of air pollution on morbidity and mortality are well documented as is the fact



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| 496 | **Impacts** | Comment is duly noted. The Draft Environmental Impact Statement notes matters of uncertainty throughout the entire document. Examples include study findings in the sections, *Air Quality, Noise, Visual Resources, Land Use, Displacements and Relocations, and Cultural Resources* in Chapter 4. In Chapter 3, *Alternatives*, reference is made to continued monitoring of design and cost to account for needed updates. On page 4-1, in the text box, "*Can the Impacts Change and, If So, How?*", text is presented on how such dynamics are tracked. |

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| | that these impacts are largest for sensitive groups such as children and seniors. This is of special concern due to the large proportion of families with young children and communities of seniors in Ahwatukee. See the EPA's (2011) *Second Prospective Study 1990-2020 of the Clean Air Act* and the associated appendices for the epidemiological consensus on health impacts and calibrated dose-response functions. The range of potential health impacts should be quantified and monetized using standard measures of the "value of a statistical life" consistent with best practices in regulatory evaluation established in the OMB and EPA guidelines. Even the lower bound on number of lives lost is likely to be sufficiently high to raise serious concerns for policy makers. |
| 495 | C. The effects of the freeway on health outcomes are no more uncertain than the effects of the freeway on commute times. Yet, there is no mention of uncertainty in commute times. Throughout the DEIS, the economic benefits of building the freeway are conveyed with a false sense of precision whereas the environmental costs are dismissed altogether because they are uncertain. This asymmetric treatment of uncertainty has the effect of biasing the DEIS in favor of building the freeway with the Pecos road alignment. |
| 497 | Comment #7: The DEIS fails to adequately address the uncertainty of benefits from building the freeway. For example, the actual reduction in commute time that would be realized if the freeway were to be build will depend on several sources of uncertainty, including but not limited to: (i) future patterns of residential development; (ii) future location choices made by firms; (iii) future residential and job location choices made by workers; (iv) future trends in telecommuting; (v) future trends in "flex-time" and the ability of workers to commute during off-peak hours; (vi) future trends in the national economy; (vii) future trends in in the international economy and trade that influence the rate of trucking through Phoenix; (viii) future trends in automobile design; (ix) the impact of building the freeway on the desirability of living in Ahwatukee; and (x) future trends in the price of gasoline, electricity, and other factors affecting commuting costs. These sources of uncertainty should be carefully analyzed and policy makers should be informed |

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| 497 | **Environmental Analysis** | 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.<br>The Council on Environmental Quality regulations state information for decision making must be of high quality and based on accurate scientific analysis.<br>The models, methods, and assumptions used throughout the Draft Environmental Impact Statement account for reasonably foreseeable future conditions and dismiss speculative considerations. |

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| | about the statistical distribution of possible outcomes for commute times. More broadly, sources of uncertainty should be addressed throughout the discussion of benefits of building the freeway. |
| 498 | Comment #8: The DEIS systematically overstates the likely benefits of building the freeway to Phoenix commuters. The estimated benefits are based on statistics for projected future traffic patterns provided by the Maricopa Association of Governments. However, these statistics are primarily extrapolations of past trends. In other words, they are "made up". They are not derived from a consistent model of residential location choice or a realistic model of commuting choices. It is difficult to believe that many workers would make residential and job location choices that would induce them to use the new freeway. Projections for future traffic congestion also fail to incorporate future growth in the share of workers who work from home or are allowed the flexibility to commute during off-peak hours. Furthermore, estimates for the opportunity cost of time used to quantify the value of reduced commute times are not consistently linked to the actual commuters who use the freeway during peak hours, but are likely driven by high-income commuters living in places such as Scottsdale who will not use the new freeway if it is build. In addition, the models of traffic congestion in the DEIS are inadequate for estimating the impact of the freeway on commute times. The DEIS fails to provide even the most basic facts about commuting. For example, what fraction of today's metro area commuters would experience a shorter commute (in terms of physical distance) if the South Mountain Freeway were built? This information can easily be obtained from the U.S. Census Bureau's annual Public Use Microdata Sample of respondents to the *American Community Survey*, which provides information on workers' house locations, job locations, time leaving home to go to work, and travel times. |
| 499 498 | Comment #9: Throughout the DEIS, the analysis of benefits of building the freeway is based on a false premise that the demand for transportation will be the same whether or not the freeway is built. This results in overstatement of the benefits of building the freeway. In reality, building the freeway is likely to change residential development patterns which, in turn, will increase the demand for using the freeway relative to the demand if the freeway had not been built. In other words, building the freeway will increase the demand for using the freeway due to increases in |
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| 498 | **Purpose and Need** | 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.<br>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 a lower anticipated population 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.<br>The models, methods, and assumptions used throughout the Draft Environmental Impact Statement account for reasonably foreseeable future conditions and rightfully dismiss speculative considerations. As examples, the Maricopa Association of Governments, as the federally designated regional transportation planning agency, is nationally recognized as a leader in air quality modeling and traffic modeling and forecasting. The models used account for the assumptions made in the comment. |
| 499 | **Traffic** | The Federal Highway Administration and the U.S. Environmental Protection Agency approved the air quality conformity determination that includes the Maricopa Association of Governments regional travel demand model that produced the traffic projections used in the traffic analysis for the project (see page 3-27 of the Draft Environmental Impact Statement). The model is run with and without the proposed freeway. Traffic projections are regularly updated by the Maricopa Association of Governments based on studies of travel patterns and changes in land use conditions. The traffic projections in the Draft Environmental Impact Statement are from a model adopted in 2011. |

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| 500 | driving by current residents, increases in commercial traffic, and increased migration to areas near the freeway. These "feedback effects" will increase congestion on the freeway, diminishing its benefits, especially for existing residents of Phoenix. This effect is well known to transportation economists as "The Fundamental Law of Road Congestion". Yet recognition of this effect is completely missing from the transportation models throughout the DEIS. In perhaps the most comprehensive empirical study of the causal relationship between road projects and traffic congestion, Duranton and Turner (2011) concluded that adding a new road with the characteristics of the South Mountain Freeway is unlikely to relieve congestion. See: Duranton, Gilles, and Matthew A. Turner. "The Fundamental Law of Road Congestion: Evidence from US Cities." *American Economic Review*. 101 (October 2011): 2616-2652.<br><br>Comment #10: There is overwhelming evidence in economics journals and federal regulatory evaluations that freeways produce negative externalities that substantially diminish the quality of life for those living nearby. Some of these effects will likely be reflected in reductions (or slower growth) in property values for residential neighborhoods experiencing diminished quality of life. It is standard practice to use hedonic property value methods and contingent valuation methods to quantify these costs as part of regulatory evaluations. However, no such effort is undertaken in the draft EIS. The following impacts should be quantified and included in the EIS using best practices in methods for economic valuation of environmental impacts of public projects as outlined in EPA's Guidelines for Preparing Economic Analysis: (1) effect of air pollution on property values; (2) effect of noise pollution on property values; (3) cost of water pollution produced from freeway runoff; (4) value of lost recreation benefits to joggers and bicyclists who currently use Pecos road for recreation; (5) value of diminished recreation benefits for people using South Mountain Park due to visual disamenities, noise, dust, odors, and non-visible air pollution created by the freeway; and (6) the impact of building the freeway on crime in Ahwatukee and, in turn, the effect of increased crime on property values. This last point deserves some explanation. At present, weekly statistics from the police blotter indicate that there is virtually no violent crime or property crime in western Ahwatukee. The vast majority of Ahwatukee crimes occur in the eastern part of the town close to the I-10. The lack of crime is western Ahwatukee is likely due to the fact that, as the end of a big cul-de-sac, criminals have no<br><br>7 |

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| 500 | **General Impacts** | The study used state-of-the-practice, scientific community methods and similarly accepted methods. Methods, assumptions, and data were developed early in the environmental impact statement process and peer reviewed by the Federal Highway Administration, the Arizona Department of Transportation, and other federal, State, and local agencies. Peer reviewers concluded that the methods, assumptions, and data are appropriate. The Draft Environmental Impact Statement has sufficient technical merit, does comply with "fundamental concepts and purpose of an environmental impact statement," and does appropriately and properly inform the public.<br><br>The Arizona Department of Transportation and Federal Highway Administration, in cooperation with the U.S. Army Corps of Engineers, the U.S. Bureau of Indian Affairs, and the Western Area Power Administration, prepared the Draft and Final Environmental Impact Statements and Section 4(f) Evaluation in accordance with the National Environmental Policy Act of 1969 [42 United States Code § 4332(2)(c)], Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 United States Code § 303, as amended), and Section 404 of the Clean Water Act of 1977 (33 United States Code § 1251). All of these agencies are experienced in the review of National Environmental Policy Act documents and have found the logical sequence of decision making to be sound and in line with National Environmental Policy Act requirements. The Draft Environmental Impact Statement and Section 4(f) Evaluation 1) satisfies Federal Highway Administration and Arizona Department of Transportation's environmental analysis requirements; 2) provides a comparison of the social, economic, and environmental impacts that may result from implementation of the proposed action—construction and operation of a major transportation facility; and 3) identifies measures to avoid, reduce, or otherwise mitigate adverse impacts. |
| 501 | **Traffic** | 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.<br><br>In 2006, the City of Phoenix conducted a traffic circulation study to evaluate the impacts of the proposed freeway on the local street system. The City study found no adverse effects on the local street system from the freeway (see Appendix 3-1 in the Final Environmental Impact Statement).<br><br>The traffic projections for Chandler Boulevard (see Figure 3-12 on page 3-29 of the Draft Environmental Impact Statement) do show a reduction with the proposed freeway when compared with conditions without the proposed freeway. |
| 502 | **Health Effects** | A common theme in public comments on the proposed project has been the potential impacts of the project on children's health, primarily through vehicle emissions and noise. Many commenters raised concerns about the proximity of the project to schools or other aspects of the project that may affect children. In addition, the U.S. Environmental Protection Agency requested that the Final Environmental Impact Statement address Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*.<br><br>Throughout the Final 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 Final Environmental Impact Statement incorporates an assessment of the potential impacts of the proposed project on all populations, including children. The Final Environmental Impact |

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| | escape route. Building the freeway will provide such an escape route and increase the attractiveness of the area to criminals as a result. Those who argue in favor of building the freeway often claim that Ahwatukee residents should have known that these effects might eventually occur as a result of the freeway when they first purchased property in the area and that, as a result, the negative externalities are already capitalized into property values. This claim is false. The conventional wisdom of real estate agents and homebuyers in Ahwatukee is that the freeway would never be built and that the original 1985 plan to build the freeway was simply a relic of "pre-Ahwatukee" regional planning. As a result, the freeway will act as a shock to the local housing market and depress property values. |
| 501 | Comment #11: In the event of heavy traffic, road work, or accidents, drivers on the South Mountain Freeway are likely to use Chandler Blvd. as a bypass. GPS devices will mechanically divert drivers off the freeway and onto Chandler. This is especially true for the Chandler Blvd segment from S. 17th Ave to Desert Foothills Parkway because this segment has 4 lanes, a speed limit of 45mph, and no stop signs or traffic lights. This will create a serious public health hazard because the aforementioned segment of Chandler goes right through the residential neighborhood of "Club West". Joggers, bicyclists, families and children use Chandler Blvd during the morning and evening commute hours for recreation and to walk/bicycle to/from school and parks. Young children on foot or on bicycle and joggers with headphones are often seen crossing the street. The lack of stop signs and crosswalks is not currently a problem because traffic is light. However, with some freeway commuters using the Chandler Blvd corridor as a bypass, there is likely to be a surge in traffic accidents and traffic-related pedestrian deaths in this family-oriented residential neighborhood. These effects are entirely ignored in the DEIS. |
| 502 | Comment #12: The DEIS violates the spirit of Presidential Executive Order #13045 by failing to identify and assess the environmental health risks and safety risks that may disproportionately affect children as a result of the freeway. An example of the environmental health risk is the increase in ambient ozone concentrations that will affect children living in Ahwatukee, particularly those who use the numerous public schools and public parks located between South |
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| 502 (cont.) | | Statement addresses potential impacts of the project on children in the Chapter 4 environmental consequences analyses.<br>The U.S. Environmental Protection Agency's Toxicity and Exposure Assessments for Children's Health report (see page 4-73 of the Final Environmental Impact Statement) 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. It mentioned children when identifying the effects of acute exposure to naphthalene. The Final Environmental Impact Statement acknowledges and fully discloses public scoping comments that raised the topic of health effects on neighborhoods and adjacent schools (see page 4-31 of the Final Environmental Impact Statement).<br>The Final Environmental Impact Statement evaluates Clean Air Act criteria air pollutant concentrations in Maricopa County and the Phoenix area (see pages 4-75 to 4-77 of the Final Environmental Impact Statement). With regard to air quality impacts, the Final Environmental Impact Statement addresses children's health impacts within the broader discussion regarding health impacts under the National Ambient Air Quality Standards. Clean Air Act Section 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 Section 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 *Federal Register* 3086 and 3090) (quoting S. Rep. No. 91-1196, 91st Cong., 2 Sess. 10 [1970]) (alterations in original). Accordingly, the Final Environmental Impact Statement National Ambient Air Quality Standards-based evaluation of criteria air pollutants includes 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 *Federal Register* 3090).<br>Sensitive receivers for air and noise are already included in the air quality and noise analyses in accordance with State and federal guidance. Both sections, *Air Quality* and *Noise*, 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.<br>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 Final Environmental Impact Statement, all were predicted to exceed Federal Highway Administration 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 |

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| | Mountain Park and the proposed Pecos Road alignment of the freeway. The EPA identifies children as a "sensitive group" for ambient ozone. An example of the safety risk is the increase in traffic on arterial streets that wind through residential neighborhoods in Ahwatukee, particular during periods of heavy traffic, road work, or freeway accidents when drivers will naturally use Chandler Blvd as a bypass. The traffic poses a safety risk because children frequently walk / bike / run / play on the streets that will experience increased traffic, such as Chandler Blvd from S. 17th Ave through Desert Foothills Parkway. This will increase the risk of accidental deaths of children.<br><br>9 |

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| **502 (cont.)** | | 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-A-weighted decibels 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.<br>The Arizona Department of Transportation noise policy also states that noise abatement shall be considered if "substantial increases" (defined as a 15 A-weighted decibels 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.<br>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 ($PM_{10}$) was presented in the Draft Environmental Impact Statement, a quantitative project-level particulate matter ($PM_{10}$) 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. 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. Through analysis, the Federal Highway Administration has determined that the proposed project would not produce disproportionate impacts on children.<br>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. Evidence was "suggestive but not sufficient" for health outcomes such as cardiovascular mortality and others. |

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| **502 (cont.)** | | Study authors also noted that past epidemiological 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 mobile source air toxics "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>. The Federal Highway Administration and U.S. Environmental Protection Agency provide financial support to the Health Effects Institute's research work.<br>Another source of information is the U.S. Environmental Protection Agency's recently released report on Children's Health and the Environment:<br>*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.*<br>*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.*<br>*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.*<br>Finally, the Federal Highway Administration notes that while the incidence of some health effects (such as asthma, autism, and attention deficit/hyperactivity disorder) in the U.S. population appear to have been increasing, motor vehicle emissions have declined. This decline in mobile source air toxics emissions is documented in Figure 4-24 of the Final Environmental Impact Statement 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. |

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# Additional Comments

## Seven

Comments by Hugh S. Mason dated July 21, 2013,
resident of Phoenix and the Ahwatukee are and
Associate Professor at Arizona State University,
School of Life Sciences

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-----Original Message-----
From: Hugh Mason <Hugh.Mason@asu.edu>
To: projects <projects@azdot.gov>
Cc: PARCtheSMF <PARCtheSMF@aol.com>
Sent: Sun, Jul 21, 2013 1:44 pm
Subject: Comments on DEIS for SMF

Dear ADOT:

503 I am a citizen and resident of Phoenix and the Ahwatukee area, and Associate Professor at Arizona State University School of Life Sciences. I am writing to ADOT regarding its draft environmental impact study (DEIS) for the South Mountain freeway (SMF). I would like to register my strong opposition to the building of the SMF. I am a member of Protecting Arizona's Resources and Children (PARC), and fully support its efforts to prevent the building of SMF. I have great concerns about the DEIS, as presented below.

504 One of my main concerns is that the DEIS greatly underestimates the impact of the SMF on the air quality for residents living nearby. The DEIS minimizes the potential pollution that will be caused by trucks burning diesel fuel, especially those coming from Mexico having fuel that is poorly regulated and high in contaminants like sulfur. The DEIS suggests that the "truck bypass" route on I-8 and SH-85 will be preferred by truckers. However, this route is substantially longer than the proposed SMF, and is thus unlikely to be viewed as economically feasible. Due to the geographic features along the E1 Pecos road corridor, concentration of the vehicle emissions is likely to compound toxicity issues in this area. The extreme proximity of several schools to the E1 route puts a huge number of children at risk of health problems due to air pollution.

505 The E1 route would require massive cuts in the ridges of South Mountain on the west side. This action is unfeasible for two main reasons. All of the Native American tribes in the area consider South Mountain to be sacred, and the proposed action would desecrate the land. Although that reason alone is enough to abandon the plan, another factor is more important to most of us: air quality. The blasting required for the SM ridge cuts (and other cuts along the E1 route) would generate huge amounts of airborne particulate matter. The fine dust generated by construction (especially PM10 particles that can be inhaled deeply) will produce respiratory problems for people in the area. Moreover, it will threaten federal funds for transportation that require control of air quality. Maricopa County has had great difficulty maintaining PM10 standards, and the construction of the SMF would certainly make it more difficult, if not impossible.

The DEIS makes dire predictions for adverse effects on the regional economy if the "no action" option is chosen. However, we must remember that the SMF plan was first proposed more than 25 years ago, when fuel was relatively cheap and few people saw any problem with continuation of the freeway transportation paradigm. Data on climate change and greenhouse gases in the atmosphere have steadily accumulated over the years, to the point that it is obvious that we need a transportation paradigm shift in order to address the problems we face. We must reallocate most of our resources away from freeway construction and invest them in technologies that will minimize adverse environmental effects. I strongly advocate light rail expansion throughout the valley. Thus, not building the SMF should not be called "no action", because there are other actions that can be funded with the resources.

I strongly urge the ADOT to abandon the SMF plan and intensify studies of other transportation options that are more environmentally friendly.

Sincerely,
Hugh S. Mason

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| 503 | | Responses to specific comments appear below. |
| 504 | **Trucks** | The road network in the Maricopa Association of Governments travel demand model includes the Interstate 8 and State Route 85 corridor. So, while the roads are not in the Study Area for the proposed action, traffic and trip distributions along the corridor are included in the traffic analysis for the proposed action. Any traffic that would shift from the Interstate 8 and State Route 85 corridor to the proposed action would be included in the vehicle mix considered in the air quality analysis.<br>A truck driver traveling from Tucson to Los Angeles and choosing to use Interstate 10 and the proposed freeway would travel 15 miles less than one choosing to use the designated truck bypass along Interstate 8 and State Route 85.<br>Choosing to travel on the proposed action versus Interstate 8 and State Route 85 would not translate to any substantial travel time benefits. Therefore, 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.<br>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>).<br>Petróleos Mexicanos (better known as Pemex), the Mexican state-owned petroleum company, has guaranteed 15 parts per million in its sulfur diesel fuel in the border region (see <http://transportpolicy.net/index.php?title=Mexico:_Fuels:_ Diesel_and_Gasoline>).<br>As explained on pages 4-69 and 4-77 of the Draft and Final Environmental Impact Statements, respectively, the emissions analysis conducted for the project shows that future mobile source air toxics emissions will be lower than current levels. This analysis included projected truck traffic. |
| 505 | **Air Quality** | A common theme in public comments on the proposed project has been the potential impacts of the project on children's health, primarily through vehicle emissions and noise. Many commenters raised concerns about the proximity of the project to schools or other aspects of the project that may affect children. In addition, the U.S. Environmental Protection Agency requested that the Final Environmental Impact Statement address Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*.<br>Throughout the Final 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 Final Environmental Impact Statement incorporates an assessment of the potential impacts of the proposed project on all populations, including children. The Final Environmental Impact Statement addresses potential impacts of the project on children in the Chapter 4 environmental consequences analyses.<br>The U.S. Environmental Protection Agency's Toxicity and Exposure Assessments for Children's Health report (see page 4-73 of the Final Environmental Impact Statement) 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. It mentioned children when identifying the effects of acute exposure to naphthalene. The Final Environmental Impact Statement acknowledges and fully discloses public scoping comments that raised the topic of health effects on neighborhoods and adjacent schools (see page 4-31 of the Final Environmental Impact Statement).<br>The Final Environmental Impact Statement evaluates Clean Air Act criteria air pollutant concentrations in Maricopa County and the Phoenix area (see pages 4-75 to 4-77 of the |

(Response 505 continues on next page)

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-----Original Message-----
From: Hugh Mason <Hugh.Mason@asu.edu>
To: projects <projects@azdot.gov>
Cc: PARCtheSMF <PARCtheSMF@aol.com>
Sent: Sun, Jul 21, 2013 1:44 pm
Subject: Comments on DEIS for SMF

Dear ADOT:

I am a citizen and resident of Phoenix and the Ahwatukee area, and Associate Professor at Arizona State University School of Life Sciences. I am writing to ADOT regarding its draft environmental impact study (DEIS) for the South Mountain freeway (SMF). I would like to register my strong opposition to the building of the SMF. I am a member of Protecting Arizona's Resources and Children (PARC), and fully support its efforts to prevent the building of SMF. I have great concerns about the DEIS, as presented below.

One of my main concerns is that the DEIS greatly underestimates the impact of the SMF on the air quality for residents living nearby. The DEIS minimizes the potential pollution that will be caused by trucks burning diesel fuel, especially those coming from Mexico having fuel that is poorly regulated and high in contaminants like sulfur. The DEIS suggests that the "truck bypass" route on I-8 and SH-85 will be preferred by truckers. However, this route is substantially longer than the proposed SMF, and is thus unlikely to be viewed as economically feasible. Due to the geographic features along the E1 Pecos road corridor, concentration of the vehicle emissions is likely to compound toxicity issues in this area. The extreme proximity of several schools to the E1 route puts a huge number of children at risk of health problems due to air pollution.

506 The E1 route would require massive cuts in the ridges of South Mountain on the west side. This action is unfeasible for two main reasons. All of the Native American tribes in the area consider South Mountain to be sacred, and the proposed action would desecrate the land. Although that reason alone is enough to abandon the plan, another factor is more important to most of us: air quality. The blasting required for the SM ridge cuts (and other cuts along the E1 route) would generate huge amounts of airborne particulate matter. The fine dust generated by construction (especially PM10 particles that can be inhaled deeply) will produce respiratory problems for people in the area. Moreover, it will threaten federal funds for transportation that require control of air quality. Maricopa County has had great difficulty maintaining PM10 standards, and the construction of the SMF would certainly make it more difficult, if not impossible.

The DEIS makes dire predictions for adverse effects on the regional economy if the "no action" option is chosen. However, we must remember that the SMF plan was first proposed more than 25 years ago, when fuel was relatively cheap and few people saw any problem with continuation of the freeway transportation paradigm. Data on climate change and greenhouse gases in the atmosphere have steadily accumulated over the years, to the point that it is obvious that we need a transportation paradigm shift in order to address the problems we face. We must reallocate most of our resources away from freeway construction and invest them in technologies that will minimize adverse environmental effects. I strongly advocate light rail expansion throughout the valley. Thus, not building the SMF should not be called "no action", because there are other actions that can be funded with the resources.

I strongly urge the ADOT to abandon the SMF plan and intensify studies of other transportation options that are more environmentally friendly.

Sincerely,
Hugh S. Mason

| Code | Issue | Response |
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| **505 (cont.)** | | Final Environmental Impact Statement). With regard to air quality impacts, the Final Environmental Impact Statement addresses children's health impacts within the broader discussion regarding health impacts under the National Ambient Air Quality Standards. Clean Air Act Section 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 Section 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 *Federal Register* 3086 and 3090) (quoting S. Rep. No. 91-1196, 91st Cong., 2 Sess. 10 [1970]) (alterations in original). Accordingly, the Final Environmental Impact Statement National Ambient Air Quality Standards-based evaluation of criteria air pollutants includes 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 *Federal Register* 3090).<br>Sensitive receivers for air and noise are already included in the air quality and noise analyses in accordance with State and federal guidance. Both sections, *Air Quality* and *Noise*, 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.<br>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 ($PM_{10}$) was presented in the Draft Environmental Impact Statement, a quantitative project-level particulate matter ($PM_{10}$) 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. 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. Through analysis, the Federal Highway Administration has determined that the proposed project would not produce disproportionate impacts on children. |
| **506** | **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 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 |

(Response 506 continues on next page)

| Code | Comment Document |
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-----Original Message-----
From: Hugh Mason <Hugh.Mason@asu.edu>
To: projects <projects@azdot.gov>
Cc: PARCtheSMF <PARCtheSMF@aol.com>
Sent: Sun, Jul 21, 2013 1:44 pm
Subject: Comments on DEIS for SMF

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One of my main concerns is that the DEIS greatly underestimates the impact of the SMF on the air quality for residents living nearby. The DEIS minimizes the potential pollution that will be caused by trucks burning diesel fuel, especially those coming from Mexico having fuel that is poorly regulated and high in contaminants like sulfur. The DEIS suggests that the "truck bypass" route on I-8 and SH-85 will be preferred by truckers. However, this route is substantially longer than the proposed SMF, and is thus unlikely to be viewed as economically feasible. Due to the geographic features along the E1 Pecos road corridor, concentration of the vehicle emissions is likely to compound toxicity issues in this area. The extreme proximity of several schools to the E1 route puts a huge number of children at risk of health problems due to air pollution.

The E1 route would require massive cuts in the ridges of South Mountain on the west side. This action is unfeasible for two main reasons. All of the Native American tribes in the area consider South Mountain to be sacred, and the proposed action would desecrate the land. Although that reason alone is enough to abandon the plan, another factor is more important to most of us: air quality. The blasting required for the SM ridge cuts (and other cuts along the E1 route) would generate huge amounts of airborne particulate matter. The fine dust generated by construction (especially PM10 particles that can be inhaled deeply) will produce respiratory problems for people in the area. Moreover, it will threaten federal funds for transportation that require control of air quality. Maricopa County has had great difficulty maintaining PM10 standards, and the construction of the SMF would certainly make it more difficult, if not impossible. 507

The DEIS makes dire predictions for adverse effects on the regional economy if the "no action" option is chosen. However, we must remember that the SMF plan was first proposed more than 25 years ago, when fuel was relatively cheap and few people saw any problem with continuation of the freeway transportation paradigm. Data on climate change and greenhouse gases in the atmosphere have steadily accumulated over the years, to the point that it is obvious that we need a transportation paradigm shift in order to address the problems we face. We must reallocate most of our resources away from freeway construction and invest them in technologies that will minimize adverse environmental effects. I strongly advocate light rail expansion throughout the valley. Thus, not building the SMF should not be called "no action", because there are other actions that can be funded with the resources. 508

I strongly urge the ADOT to abandon the SMF plan and intensify studies of other transportation options that are more environmentally friendly. 509

Sincerely,
Hugh S. Mason

| Code | Issue | Response |
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| **506 (cont.)** | | 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. |
| **507** | **Air Quality** | The Arizona Department of Transportation and Federal Highway Administration have updated the particulate matter ($PM_{10}$) qualitative analysis performed for the Draft Environmental Impact Statement to a quantitative analysis for the Final Environmental Impact Statement to ensure that a state-of-the-art analysis is completed for the proposed project. 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 ($PM_{10}$) 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.<br>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 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. |
| **508** | **Purpose and Need** | At the beginning of the environmental impact statement process, the need for a major transportation facility was reexamined to determine whether such a facility is still needed. Validation of those findings occurred throughout the entire environmental impact statement process. Analysis of the purpose and need for the proposed action followed National Environmental Policy Act and Federal Highway Administration implementing guidance on the subject matter and used state-of-the-practice analytical tools, as pointed out in Table 1-3, "Traffic Analysis Tools," on page 1-13 of the Draft Environmental Impact Statement. The results of the analysis determined that a transportation problem does exist and that problem will continue in the foreseeable future (see section, *Conclusions*, on page 1-21). As noted on page 3-1 in the section, *Reconfirm the Purpose and Need for the Proposed Action*, a continuous validation process was undertaken throughout the environmental impact statement process to ensure past conclusions in the environmental impact statement process remained valid.<br>The reader is referred to Draft Environmental Impact Statement Chapter 3, *Alternatives*, and, specifically, the section, *Alternatives Development and Screening Process Conclusions*, beginning on page 3-26, noting "... a comprehensive set of alternatives including all modes was considered ... assurance that the screening process was an open process ... a logical, sequential, step-by-step process using data and expertise from multiple disciplines ..." to demonstrate all possibilities were considered. |
| **509** | | Comment noted. |

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**Additional Comments**

**Eight**

Comment by
Phoenix Mountains Preservation Council

| Code | Issue | Response |
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| Code | Comment Document |
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| 510 | PMPC: May 21, 2013<br>**Phoenix Mountains Preservation Council**<br>Official position on the Arizona Department of Transportation's<br>South Mountain Freeway Draft Environmental Impact Study |
| 511 | PMPC is an organization put into place by Arizona visionaries, and for the last 40 years PMPC has continued to monitor and anticipate the impact that rapid population growth would have on our precious Mountain Preserve system. |
| 512 | **PMPC is steadfastly opposed to any alignment of the Loop 202 South Mountain Freeway that allows for trespass onto the Mountain Preserve or for any excavation into the South Mountain what so ever. These mountain preserves ensures a lifestyle that 80% of Arizona voters consistently support. The mountain preserves are unique and are for people and wildlife, not for vehicle trespass. PMPC does not agree with** many of the DEIS assumptions finding them objectionable and deficient in the following analysis areas. |
| 513 | Unexceptable Pre-Decisional Actions: ADOT has made some pre-decisional actions with the purchase of property before the Draft Environmental Impact Statement (DEIS) was released. Phoenix Mountains Preservation Council (PMPC) questions the legality of this action and the entire DEIS when it appears ADOT has already made considerable financial investment to establish the alignment for the South Mountain Freeway rather than follow the prescribed process.<br><br>Dismal Wildlife Connectivity: The DEIS does not meet the minimal requirements for coordination and analysis of wildlife resources. The Arizona Game and Fish Department was consulted in 2009 during scoping. The current connection to the Estrella Mountains allows for passage of mule deer, javelina, bobcat, and mountain lion. There is no evidence of further efforts to ascertain wildlife connectivity needs or possible mitigation. The Sonoran desert tortoise provides additional evidence of inadequate cumulative analysis given its status as a U.S. Fish & Wildlife Service's candidate species. The mountain ridge area slated for demolition meets the definition for the tortoise's habitat.<br><br>Unreasonable Taking of Mountain Preservation Lands: The DEIS states in Figure 5-7 Public Parkland the avoidance of taking over 30 acres of the Preserve is "not prudent and feasible". The taking of this mountainside will destroy important archeological, spiritual, cultural and recreational sites with no realistic or reasonable mitigation possible in the study. The study failed to recognize and address new two trails, Gila and Bursera Trails, created in the southwest end of the Preserve in 2010.<br><br>Outdated Data Projections Used: The DEIS is based on outdated data projections that are now six to eight years old. The analysis does not acknowledge the impact the major economic downturn had and it brings into question the validity of projected growth levels put forth in the DEIS. In all the alternative studies, the DEIS does not provide one alternative analysis to the demolition of the southwest ridges of South Mountain. Furthermore, nowhere in this study is there an assessment of hazardous material truck traffic nor any mention of managing this truck traffic and the consequences of a serious hazard waste incident.<br><br>Over 3 million visitors come to South Mountain Park/Preserve annually, according to City of Phoenix statistics. Destroying any part of the mountain to align a high-capacity freeway will only have a negative impact on tourism and the many unique resources the park offers.<br><br>We urge ADOT to stop providing studies that do not accurately or thoroughly address the impact this freeway has on South Mountain. It's time to stop the $20 million and more in wasted tax payer's money to study the environmental impact and design for an alignment that no longer makes sense. |

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| 510 | | Responses to specific comments appear below. |
| 511 | | Comment noted. |
| 512 | **Section 4(f) and Section 6(f)** | The information regarding the context and attributes of the South Mountains is described in the Draft Environmental Impact Statement. The acreage of parkland to be converted to a transportation use is reported 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 would be converted (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 on page 5-14 in the sidebar, "*The South Mountains in Phoenix's Sonoran Preserve System*," describes the importance of Phoenix South Mountain Park/Preserve 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. The section, *Cultural Resources*, beginning on page 4-128, also discloses the relation of the proposed action to the cultural resource attributes of the South Mountains.<br>City of Phoenix planning efforts since the mid-1980s illustrate an awareness of the potential for the proposed 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 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 page 5-14 of the Draft Environmental Impact Statement). The project team examined alternatives to avoid the park, but did not identify any feasible and prudent alternatives to avoid impacts. 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 Draft Environmental Impact Statement, starting on page 5-23). |
| 513 | **Alternatives** | The comment suggests the environmental impact statement process was biased by a history of property acquisitions within the Study Area. More specifically, properties falling within the limits of the Preferred Alternative, as identified in the Final Environmental Impact Statement, were targeted for acquisition.<br>As noted in text on page 3-54 of the Final Environmental Impact Statement, the Arizona Department of Transportation began acquiring land for the original alignment in 1988. Between 1988 and 2001, the Arizona Department of Transportation acquired approximately 293 acres. Most of this land (258 acres) is located in the Eastern Section along Pecos Road. In 2006, the Arizona Department of Transportation began protective and hardship land acquisition in the alignment right-of-way footprint for the W59 and E1 Alternatives. Between 2006 and October 2013, the Arizona Department of Transportation purchased 326 acres (303 in the Western Section and 23 in the Eastern Section). The process for hardship and advanced acquisitions is explained in text on page 4-50 of the Final Environmental Impact Statement. |

(Response 513 continues on next page)

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PMPC: May 21, 2013

**Phoenix Mountains Preservation Council**
Official position on the Arizona Department of Transportation's
South Mountain Freeway Draft Environmental Impact Study

PMPC is an organization put into place by Arizona visionaries, and for the last 40 years PMPC has continued to monitor and anticipate the impact that rapid population growth would have on our precious Mountain Preserve system.

**PMPC is steadfastly opposed to any alignment of the Loop 202 South Mountain Freeway that allows for trespass onto the Mountain Preserve or for any excavation into the South Mountain what so ever. These mountain preserves ensures a lifestyle that 80% of Arizona voters consistently support. The mountain preserves are unique and are for people and wildlife, not for vehicle trespass. PMPC does not agree with** many of the DEIS assumptions finding them objectionable and deficient in the following analysis areas.

Unexceptable Pre-Decisional Actions: ADOT has made some pre-decisional actions with the purchase of property before the Draft Environmental Impact Statement (DEIS) was released. Phoenix Mountains Preservation Council (PMPC) questions the legality of this action and the entire DEIS when it appears ADOT has already made considerable financial investment to establish the alignment for the South Mountain Freeway rather than follow the prescribed process.

514 Dismal Wildlife Connectivity: The DEIS does not meet the minimal requirements for coordination and analysis of wildlife resources. The Arizona Game and Fish Department was consulted in 2009 during scoping. The current connection to the Estrella Mountains allows for passage of mule deer, javelina, bobcat, and mountain lion. There is no evidence of further efforts to ascertain wildlife connectivity needs or possible mitigation. The Sonoran desert tortoise provides additional evidence of inadequate cumulative analysis given its status as a U.S. Fish & Wildlife Service's candidate species. The mountain ridge area slated for demolition meets the definition for the tortoise's habitat.

515 Unreasonable Taking of Mountain Preservation Lands: The DEIS states in Figure 5-7 Public Parkland the avoidance of taking over 30 acres of the Preserve is "not prudent and feasible". The taking of this mountainside will destroy important archeological, spiritual, cultural and recreational sites with no realistic or reasonable mitigation possible in the study. The study failed to recognize and address new two trails, Gila and Bursera Trails, created in the southwest end of the Preserve in 2010.

Outdated Data Projections Used: The DEIS is based on outdated data projections that are now six to eight years old. The analysis does not acknowledge the impact the major economic downturn had and it brings into question the validity of projected growth levels put forth in the DEIS. In all the alternative studies, the DEIS does not provide one alternative analysis to the demolition of the southwest ridges of South Mountain. Furthermore, nowhere in this study is there an assessment of hazardous material truck traffic nor any mention of managing this truck traffic and the consequences of a serious hazard waste incident.

Over 3 million visitors come to South Mountain Park/Preserve annually, according to City of Phoenix statistics. Destroying any part of the mountain to align a high-capacity freeway will only have a negative impact on tourism and the many unique resources the park offers.

We urge ADOT to stop providing studies that do not accurately or thoroughly address the impact this freeway has on South Mountain. It's time to stop the $20 million and more in wasted tax payer's money to study the environmental impact and design for an alignment that no longer makes sense.

| Code | Issue | Response |
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| 513 (cont.) | | The comment infers that by taking such action, the objective equal consideration of the alternatives studied in detail in the Draft and Final Environmental Impact Statements is tainted. Advanced acquisitions in parallel to a National Environmental Policy Act environmental determination process is not unprecedented and is common practice. In this case, property acquisitions by the Arizona Department of Transportation for purposes of implementing the proposed action are done at risk as communicated to the agency by the Federal Highway Administration. If another action alternative were to be ultimately selected, the agency would likely have to place the acquired properties on the market for sale and purchase. The Arizona Department of Transportation attempts to balance the risk against its mission of timely delivery of transportation infrastructure to the driving public. Further, Federal Highway Administration regulations do not allow the ownership of right-of-way to be a factor in the decision regarding the selection of an alternative. |
| 514 | **Biology, Plants, and Wildlife** | The section, *General Impacts on Vegetation, Wildlife, and Wildlife Habitat*, beginning on page 4-125 of the Draft Environmental Impact Statement, discloses by what means the proposed action and its alternatives would affect vegetation, wildlife, and wildlife habitat. A Biological Evaluation was submitted to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and 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 (Gopherus agassizii, draft unpublished abstract compiled and edited by the Heritage Data Management System, Phoenix). Current information 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).<br>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 as well as 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 *Mitigation*, beginning on page 4-138 of the Final Environmental Impact Statement). |
| 515 | **Section 4(f) and Section 6(f)** | The cultural and religious importance of the South Mountains is acknowledged in the Draft Environmental Impact Statement in several locations, notably pages 4-132 and 5-26. The proposed project would accommodate and preserve (to the fullest extent possible from the available alternatives) access to the South Mountains for religious practices. 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 as noted in the beginning of this response. Consultation has occurred |

(Response 515 continues on next page)

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PMPC: May 21, 2013

**Phoenix Mountains Preservation Council**
Official position on the Arizona Department of Transportation's
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| Code | Issue | Response |
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| 515 (cont.) | | 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.<br>Mitigation measures were suggested in a letter from the Lieutenant Governor of the Gila River Indian Community to the Administrator, Arizona Division, Federal Highway Administration, dated June 23, 2010 (see page A372 of Appendix 2-1 of the Final Environmental Impact Statement). In this letter, the Gila River Indian Community submitted a proposal to address partial measures for the mitigation of adverse effect from the Pecos Road Alignment of the South Mountain Freeway. The Gila River Indian Community's proposal found the engineering solutions acceptable, but stated that implementation and construction of the proposed freeway would require further consultation. In committing to the evaluation of the South Mountains Traditional Cultural Property, the Arizona Department of Transportation and Federal Highway Administration also committed to the Gila River Indian Community's participation in ongoing engineering design refinements and acknowledged the importance of all plants and animals in the traditional culture of the Akimel O'odham and Pee Posh of the Gila River Indian Community.<br>The newest South Mountains trails, the Bursera and the Pyramid, are more than ¼ mile from the proposed freeway and are analyzed in the Final Environmental Impact Statement on page 5-9. The trails are within ¼ mile of the planned Chandler extension and residential development; however, these trails do not have noise-sensitive activities or viewshed characteristics that contribute to their importance as a Section 4(f) recreational resource.<br>Use of the mountains for the purposes of the proposed freeway represents two-tenths of one percent of the total mountain range. Since 1988, and as part of this environmental impact statement process, several measures have been undertaken and will be undertaken to further reduce effects on the mountains. These measures, including narrowing the design footprint, acquiring replacement land immediately adjacent to the mountains, and the provision of highway crossings, are outlined in text beginning on page 5-23 of the Draft Environmental Impact Statement. |
| 516 | **Purpose and Need** | 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.<br>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. |

(Response 516 continues on next page)

| Code | Comment Document |
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PMPC: May 21, 2013

**Phoenix Mountains Preservation Council**
Official position on the Arizona Department of Transportation's
South Mountain Freeway Draft Environmental Impact Study

PMPC is an organization put into place by Arizona visionaries, and for the last 40 years PMPC has continued to monitor and anticipate the impact that rapid population growth would have on our precious Mountain Preserve system.

**PMPC is steadfastly opposed to any alignment of the Loop 202 South Mountain Freeway that allows for trespass onto the Mountain Preserve or for any excavation into the South Mountain what so ever. These mountain preserves ensures a lifestyle that 80% of Arizona voters consistently support. The mountain preserves are unique and are for people and wildlife, not for vehicle trespass. PMPC does not agree with** many of the DEIS assumptions finding them objectionable and deficient in the following analysis areas.

Unexceptable Pre-Decisional Actions: ADOT has made some pre-decisional actions with the purchase of property before the Draft Environmental Impact Statement (DEIS) was released. Phoenix Mountains Preservation Council (PMPC) questions the legality of this action and the entire DEIS when it appears ADOT has already made considerable financial investment to establish the alignment for the South Mountain Freeway rather than follow the prescribed process.

Dismal Wildlife Connectivity: The DEIS does not meet the minimal requirements for coordination and analysis of wildlife resources. The Arizona Game and Fish Department was consulted in 2009 during scoping. The current connection to the Estrella Mountains allows for passage of mule deer, javelina, bobcat, and mountain lion. There is no evidence of further efforts to ascertain wildlife connectivity needs or possible mitigation. The Sonoran desert tortoise provides additional evidence of inadequate cumulative analysis given its status as a U.S. Fish & Wildlife Service's candidate species. The mountain ridge area slated for demolition meets the definition for the tortoise's habitat.

Unreasonable Taking of Mountain Preservation Lands: The DEIS states in Figure 5-7 Public Parkland the avoidance of taking over 30 acres of the Preserve is "not prudent and feasible". The taking of this mountainside will destroy important archeological, spiritual, cultural and recreational sites with no realistic or reasonable mitigation possible in the study. The study failed to recognize and address new two trails, Gila and Bursera Trails, created in the southwest end of the Preserve in 2010.

Outdated Data Projections Used: The DEIS is based on outdated data projections that are now six to eight years old. The analysis does not acknowledge the impact the major economic downturn had and it brings into question the validity of projected growth levels put forth in the DEIS. In all the alternative studies, the DEIS does not provide one alternative analysis to the demolition of the southwest ridges of South Mountain. Furthermore, nowhere in this study is there an assessment of hazardous material truck traffic nor any mention of managing this truck traffic and the consequences of a serious hazard waste incident.

517 Over 3 million visitors come to South Mountain Park/Preserve annually, according to City of Phoenix statistics. Destroying any part of the mountain to align a high-capacity freeway will only have a negative impact on tourism and the many unique resources the park offers.

We urge ADOT to stop providing studies that do not accurately or thoroughly address the impact this freeway has on South Mountain. It's time to stop the $20 million and more in wasted tax payer's money to study the environmental impact and design for an alignment that no longer makes sense.

| Code | Issue | Response |
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| 516 (cont.) | | While new projections based on the 2010 Census showed a lower anticipated population 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. If the proposed action is the Selected Alternative in the record of decision, planning for emergency situations would be initiated. If the plan is amended, it is made available to the Arizona Department of Transportation.<br>A number of alternatives that avoided the South Mountains were considered during the study (see text beginning on page 5-1 of the Draft Environmental Impact Statement). These avoidance alternatives were determined to not be prudent and were eliminated from further consideration. To support this response, here is the comment from the U.S. Department of Interior on the Draft Environmental Impact Statement: "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." The complete letter can be found in Appendix 7, Volume III, on page B4. |
| 517 | **Section 4(f) and Section 6(f)** | The information regarding the context and attributes of the South Mountains is described in the Draft Environmental Impact Statement. The acreage of parkland to be converted to a transportation use is reported 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 would be converted (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 on page 5-14 in the sidebar, "*The South Mountains in Phoenix's Sonoran Preserve System*," describes the importance of Phoenix South Mountain Park/Preserve 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. The section, *Cultural Resources*, beginning on page 4-128, also discloses the relation of the proposed action to the cultural resource attributes of the South Mountains.<br>City of Phoenix planning efforts since the mid-1980s illustrate an awareness of the potential for the proposed 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 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 Draft Environmental Impact Statement page 5-14). The project team examined alternatives to avoid the park, but did not identify any feasible and prudent alternatives to avoid impacts. 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 Draft Environmental Impact Statement, starting on page 5-23). The activities that make the park such a highly valued tourist attraction (recreational activities, interaction with the Sonoran Desert) would remain. |

| Code | Comment Document |
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**Attachments**

**One**

Brown and Caldwell Study dated August 24, 1995

| Code | Issue | Response |
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| Code | Comment Document |
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M. Glotfelty

518

BROWN AND
CALDWELL

August 24, 1995

Mr. Tighue Shields, Director
Golf Course Maintenance Operations
Cobblestone Golf Group
2201 East Clubhouse Drive
Phoenix, Arizona 85048

15/2906-01

Subject: Well Feasibility/Well Siting Investigation
Foothills Golf Club, Phoenix, Arizona

Dear Mr. Shields:

Brown and Caldwell is pleased to provide Cobblestone Golf Group with this hydrogeologic study addressing the feasibility and preferable locations for a water supply well. This investigation was conducted in accordance with our agreement of August 7, 1995. Brown and Caldwell was authorized by Cobblestone Golf Group to conduct the tasks listed in the August 7, 1995 Agreement, including 1) preliminary data collection, and 2) well siting investigation.

519

**BACKGROUND**

The Foothills Golf Club is currently serviced by an existing well, which is supplemented during the summer months by City of Phoenix fire hydrant water. Use of City of Phoenix water for turf irrigation at the Foothills Golf Club is very expensive and, in addition, the existing well is located in the right-of-way for the proposed expansion of Pecos Road, and will need to be abandoned in the future. Therefore, a new water source is needed immediately to supplement the existing well, and to provide a future water supply for the Foothills Golf Club as a sole source.

520

**BASIC DATA**

The available hydrogeologic literature relating to the Foothills Golf Club area is limited. Available data were collected from the Arizona Department of Water Resources (ADWR), Cobblestone Golf Group files, and the files of Gilbert Pump Company (the pump maintenance contractor for the Foothills Golf Course well).

*Environmental Engineering And Consulting • Analytical Services*

cblstone\2906\letter.rpt\082495rhb

2653 N. Central Avenue, Suite 300, Phoenix, AZ 85012-1931
(602) 222-4444 Fax (602) 222-4466

| Code | Issue | Response |
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| 518 | | Comment noted. |
| 519 | **Water Resources** | Wastewater effluent is not available as a replacement source as noted on page 4-100 of the Draft Environmental Impact Statement; therefore, only two water sources are available for irrigation and lake supply for the Foothills Community Association. The well that would be acquired and potable water from the City of Phoenix. The discussion on page 4-100 of the Draft Environmental Impact Statement has been modified in the Final Environmental Impact Statement to reflect that reclaimed wastewater would not be available; however, the conclusion on page 4-100 is still appropriate. As stated on page 4-100 of the Draft Environmental Impact Statement, "In the event that well replacement were to be impossible, the Arizona Department of Transportation would still replace the water that would be lost through the acquisition."<br>Page 4-100 of the Draft Environmental Impact Statement states that finding a suitable location for a new well in this area may be difficult. Productivity of the well in bedrock formations is primarily based on intercepting fractures, and that can be very difficult to do. The Arizona Department of Transportation is aware of the difficult conditions that exist in replacing wells in this area.<br>The procedure identified on page 4-100 of the Draft Environmental Impact Statement, define the procedure that the Arizona Department of Transportation would use to replace affected wells, and also identifies the general costs that the Arizona Department of Transportation would incur to replace the lost water sources.<br>Depending on whether an action alternative were the Selected Alternative, it may be possible to keep the well in its current location, but move the well controls and associated piping to outside of the right-of-way. Such an analysis would be performed later in the design process. |
| 520 | | Hydrogeologic report reviewed. |

| Code | Comment Document |
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Mr. Tighue Shields
August 24, 1995
Page 2

**HYDROGEOLOGIC ANALYSIS**

The hydrogeologic analysis of the Foothills Golf Club area includes a geologic evaluation, based on review of available literature, and limited geologic mapping by a Brown and Caldwell geologist. The hydrogeologic analysis of the study area also included an evaluation of the groundwater conditions in the study area, based on hydrologic information from ADWR files and regional published reports. Generally, the available data relating to the geology of the Foothills Golf Club area were moderate, but the data relating to the hydrology and groundwater conditions of the Foothills area were quite sparse.

**Geologic Setting**

The study area is located along the southern flanks of South Mountain, which is a southwest trending mountain range that was formed during the Middle Tertiary Period (20 to 25 million years before present) as a result of low angle normal faulting. The rock types that make up South Mountain, and also occur within the study area include:

*Precambrian amphibolite gneiss*, which is a fine-grained, dark green rock that is present along the western flank of South Mountain;

*Tertiary granite and granodiorite*, which is a fine-grained, pink-to-cream-colored rock that comprises the remaining portion of the range; and

*dikes*, which are veins of rock that result from intrusion of molten rock into older pre-existing rocks. Dikes in South Mountain have various composition, and they cross-cut the Precambrian and Tertiary rocks.

**Hydrologic Setting**

The data collected from ADWR were insufficient for the preparation of a groundwater elevation contour map. However, available driller's logs for nearby wells were used to construct a generalized geologic cross-section of the area (Figure 1). A video survey obtained from Gilbert Pump Company was used to determine the static water level in the Foothills Golf Club well (Figure 1). Groundwater flow through bedrock aquifers occurs along fractures (broken or cleaved zones in the rock, along which movement has occurred) and joints (closely spaced penetrative cracks in the rock that do not show evidence of movement). The overlying alluvium in this area is relatively thin, and does not appear to significantly contribute water to wells in the Foothills Golf Club area. Therefore, the alluvium was not targeted as a major groundwater resource in this investigation. Rather, the fractured bedrock material within the study area was evaluated to identify preferable locations for installation of a new water well(s) for the facility.

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**FRACTURE TRACE ANALYSIS**

The most favorable well location in a fractured bedrock aquifer is generally along major fracture systems, or at the intersection of two or more fractures. Groundwater preferentially flows along the fracture systems and thus, a greater volume of groundwater is typically produced from wells along these geologic structures. In order to characterize the fractured bedrock in the Foothills Golf Club area, Brown and Caldwell conducted a fracture trace analysis, utilizing photogeology and field mapping, to determine the orientation (strike and dip) and overall character of the fractures.

Aerial photographs of the Foothills Golf Club area were obtained and evaluated by Brown and Caldwell hydrogeologists to identify the principal geologic lineaments in the study area. Geologic lineaments include such linear features as unusually straight drainages, vegetation alignments, and alignment of discolored or weathered surfaces along outcrops. Lineaments such as these typically occur as a result of underlying geologic structures that control the weathering, vegetation, and outcrop patterns observed at the land surface. The principal geologic lineaments in the study area are presented in Figure 2. Two primary lineament orientations were identified. The dominant (primary) lineament orientation trends to the west-southwest, and the minor (secondary) lineament orientation is nearly perpendicular to the primary lineaments, trending to the southeast. The primary lineaments are more clearly defined on the aerial photographs, and are probably associated with the tectonic event that originally formed South Mountain during the Middle Tertiary Period.

The photogeologic analysis was augmented with limited geologic mapping, and field measurement of selected fracture and joint orientations in the area. The field measurement of geologic structure orientations involves the use of a Brunton compass (a specially designed compass used for measurement of geologic formations and structures) to determine the strike (horizontal direction) and dip (vertical orientation) of dikes, fractures, and joints in the area. The joint, fracture, and dike orientations are presented in Figure 2, and are also listed in Table 1. Joints that occur in the study area frequently occur in sets of two or three intersecting joint planes (Figure 2, Table 1). The orientation of the joint planes parallels the orientation of the primary and secondary lineaments determined in the photogeologic study, and provides confirmation of Brown and Caldwell's photogeologic interpretation of the Foothills Golf Club area.

**FINDINGS AND RECOMMENDATIONS**

Based on our fracture trace analysis, Brown and Caldwell has identified three locations that appear favorable for the installation of a water well. Each of these locations is at the intersection of at least two fracture systems, as indicated in Figure 2. A more detailed map showing the location of the proposed well sites is presented in Figure 3. The three proposed well locations have been prioritized from the most favorable (indicated as "1" in Figures 2 and 3) to least favorable



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Mr. Tighue Shields
August 24, 1995
Page 4

(indicated as "3" in Figures 2 and 3). The prioritization is primarily based on the hydrogeologic setting, but also considers the location of the existing water distribution system.

An additional option would be the installation of a replacement well near the existing well site. The proposed location of a replacement well is designated as "R" in Figures 2 and 3. The Rules and Regulations of the ADWR stipulate that an additional well spacing/well impact analysis is required only if the replacement well is located more than 660 feet from the existing well. Therefore, if a replacement well is to be drilled, it should be located within 660 feet of the existing well, but beyond the right-of-way for the Pecos Road expansion.

Brown and Caldwell appreciates the opportunity to provide this well feasibility/well siting report to the Cobblestone Golf Group. If you have any questions regarding this report, or require additional information, please do not hesitate to call.

Very truly yours,

BROWN AND CALDWELL

REGISTERED GEOLOGIST
CERTIFICATE NO.
22744
MARVIN
GLOTFELTY
Date Signed 8-24-95
ARIZONA, U.S.A.

Marvin F. Glotfelty, R.G.
Groundwater Resources Manager

MFG:rbb
Attachments (4)

cc: Mr. Brett Marsh, Brown and Caldwell
Mr. Raymond Roessel, Brown and Caldwell

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Table 1. Orientation of Dikes, Joints, and Fractures Foothills Golf Club Area, Phoenix Arizona

| Station Number | Approximate Location | Orientation | Type of Feature |
|---|---|---|---|
| 1 | D(1-3)34dcd | N50E° 39SE° | Dike |
| 2 | D(1-3)34cdd | N25W° 44E° | Fracture |
| | | N80E° 30S°<br>N60W° 71N° | Joints |
| 3 | D(1-3)28cdb | N27W° 44E° | Fracture |
| | | N34E° 58E° | Joints |
| 4 | D(1-3)28dcb | N55W° 39S° | Joints |
| 5 | D(1-3)34aac | N10W° 73E°<br>N82E° 71S° | Joints |
| | | N5E° 62S° | Intersection of joints |
| 6 | D(1-3)34aaa | N48E° 45S°<br>N5E° 75W°<br>N77W° 29N° | Joints |
| | | N70E° 25E° | Intersection of joints |
| 7 | D(1-3)34daa | N48W° 71W° | Dike |
| 8 | D(1-3)34dcc | N87W° 42N° | Fracture |
| | | N52W° 39S°<br>N50E° 82E°<br>N26W° 84W° | Joints |
| | | N12E° 81S° | Intersection of joints |
| 9 | D(1-3)35cbb | N78W° 8N°<br>N80E° Vertical<br>N28W° 86W° | Joints |
| | | N62W° 87N° | Intersection of joints |
| 10 | D(1-3)35cba | N6W° 66W°<br>N86E° 15N°<br>N71E° 75S° | Joints |

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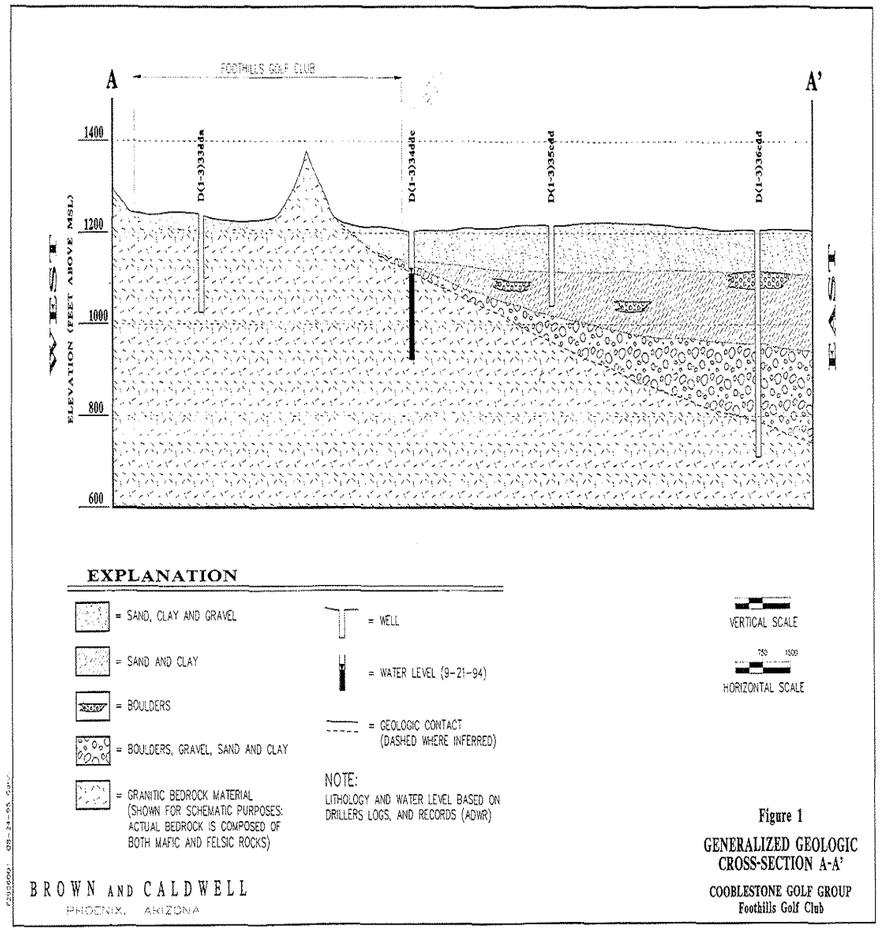


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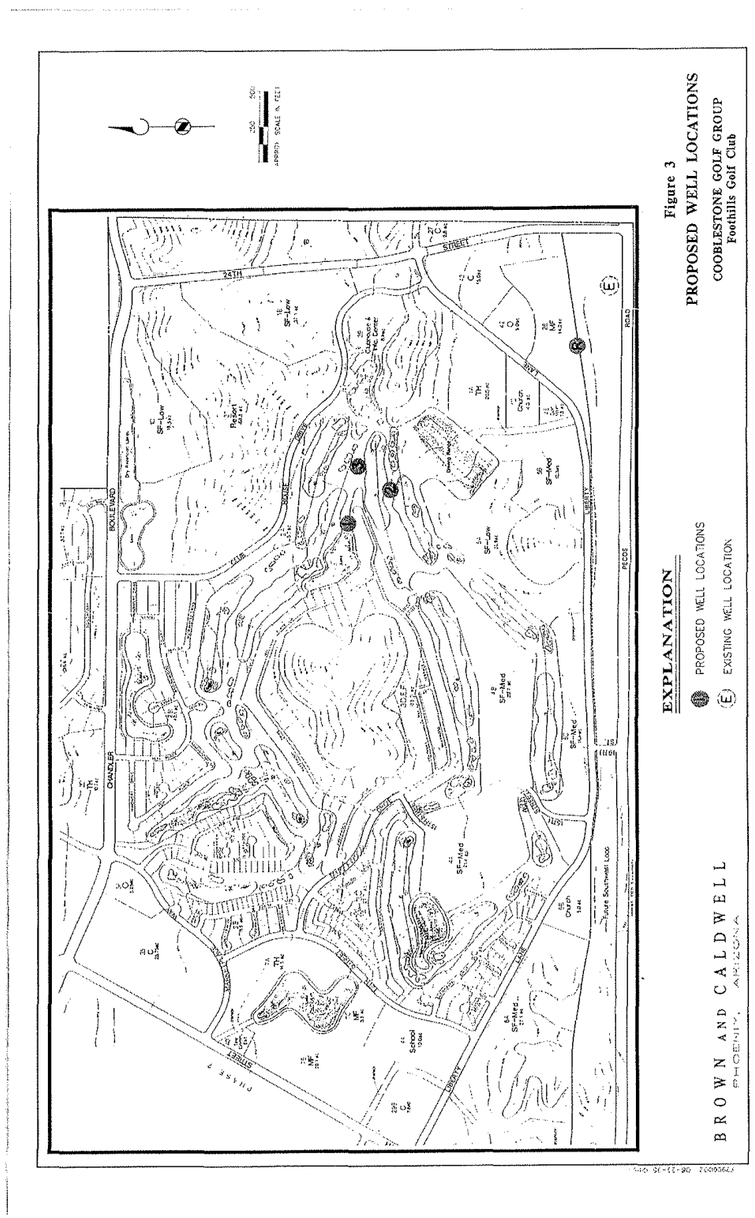
| |  |



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**Attachments**

**Two**

Correspondence Foothills Golf Re: Water

| Code | Issue | Response |
|---|---|---|

| Code | Comment Document |
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RE: Re:

**Subject:** RE: Re:
**From:** Terry <gm@Ahwatukeegc.com>
**Date:** 6/3/2013 10:03 AM
**To:** Chad Blostone <chadblostone@cox.net>

Chad,

We have not and do not plan on doing any test drilling. Suncor did several test drills when they owned it and found nothing.

Terry Duggan
President
Foothills Golf Group
Foothills Golf Club
Ahwatukee Country Club
Club West Golf Club
The Lakes Golf Club
The Duke Golf Club
(O) 480-893-9772
(C) 480-862-2947
(F) 480-699-4490

-----Original Message-----
From: Chad Blostone [mailto:chadblostone@cox.net]
Sent: Friday, May 31, 2013 4:00 PM
To: Terry
Subject: Re:

marvin at clear creek is looking for the old report. will send it to me if he can find it. have you test drilled club west?

521

On 5/30/2013 8:55 AM, Terry wrote:

> Chad,
>
> I am sure that the 55-630348 is the well next to our pump station on hole number 1. The motor was pulled and it is no longer producing any water. It was not good from the inception as it only produced enough water for a drinking fountain.
>
> The main well at Pecos is pulling from 600 to 700 gallons a minute.
>
> If we had to pay for city water the cost would be upwards of 1 million dollars annually which includes the water for the H.O.A. lakes. The Foothills Golf Club would no longer be a viable asset. We are barley breaking even at this point. The Golf Industry is not seeing any turn around yet. We can't close the course but we would probably be looking to sell it if we had to purchase straight city water.
>
> Hope this helps.
>
> Terry Duggan
> President
> Foothills Golf Group
> Foothills Golf Club
> Ahwatukee Country Club
> Club West Golf Club



| Code | Issue | Response |
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| 521 | **Water Resources** | Only two water sources are available for irrigation and lake supply for the Foothills Community Association. The well that would be acquired and potable water from the City of Phoenix. The discussion on page 4-100 of the Draft Environmental Impact Statement has been modified in the Final Environmental Impact Statement to reflect that reclaimed wastewater would not be available; however, the conclusion on page 4-100 is still appropriate. As stated on page 4-100 of the Draft Environmental Impact Statement, "In the event that well replacement were to be impossible, the Arizona Department of Transportation would still replace the water that would be lost through the acquisition."<br>Page 4-100 of the Draft Environmental Impact Statement states that finding a suitable location for a new well in this area may be difficult. Productivity of the well in bedrock formations is primarily based on intercepting fractures, and that can be very difficult to do. The Arizona Department of Transportation is aware of the difficult conditions that exist in replacing wells in this area.<br>The procedure identified on page 4-100 of the Draft Environmental Impact Statement defines the procedure that the Arizona Department of Transportation would use to replace affected wells, and also identifies the general costs that the Arizona Department of Transportation would incur to replace the lost water sources.<br>Depending on whether an action alternative were the Selected Alternative, it may be possible to keep the well in its current location, but move the well controls and associated piping to outside of the right-of-way. Such an analysis would be performed later in the design process. |

| Code | Comment Document |
|---|---|

RE: Re:

The Lakes Golf Club
The Duke Golf Club
(O) 480-893-9772
(C) 480-862-2947
(F) 480-699-4490

-----Original Message-----
From: chadblostone@cox.net [mailto:chadblostone@cox.net]
Sent: Wednesday, May 29, 2013 6:59 PM
To: Terry
Subject: Re: Re:

Do you know of another well the foothills owns in the area - 55 630348? Is it being used? If not, can it be used?

How much water are you pulling from 55 630347 in gallons per day?

I've asked this before but need to ask again - would the foothills gc be unprofitable if you were transitioned from well to city potable water? Could it lead to closure?

Thx

Sent on the Sprint(r) Now Network from my BlackBerry(r)

-----Original Message-----
From: Terry <gm@Ahwatukeegc.com>
Date: Wed, 29 May 2013 16:48:07
To: chadblostone@cox.net<chadblostone@cox.net>
Subject: RE: Re:

Chad,

Sounds good! I am sure that Clear Creek will be able to give you the most information regarding the area.

Terry Duggan
President
Foothills Golf Group
Foothills Golf Club
Ahwatukee Country Club
Club West Golf Club
The Lakes Golf Club
The Duke Golf Club
(O) 480-893-9772
(C) 480-862-2947
(F) 480-699-4490

-----Original Message-----
From: chadblostone@cox.net [mailto:chadblostone@cox.net]
Sent: Wednesday, May 29, 2013 9:46 AM
To: Terry
Subject: Re: Re:

I'm going to call clear creek and southwest water. I'll tell them I got their names from you. Anything they give the hoa that I will be forwarding to adot I'll send to u first. I don't want to get in the way of your objectives. Thx.



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RE: Re:

Sent on the Sprint(r) Now Network from my BlackBerry(r)

-----Original Message-----
From: Terry <gm@Ahwatukeegc.com>
Date: Wed, 29 May 2013 15:49:06
To: chadblostone@cox.net<chadblostone@cox.net>
Subject: RE: Re:

Chad,

I think we used Clear Creek & Associates for the geological study. Along with either Beaman Drilling or Webber to drill the wells. We are currently working with Southwest Water Works.

Terry Duggan
President
Foothills Golf Group
Foothills Golf Club
Ahwatukee Country Club
Club West Golf Club
The Lakes Golf Club
The Duke Golf Club
(O) 480-893-9772
(C) 480-862-2947
(F) 480-699-4490

-----Original Message-----
From: chadblostone@cox.net [mailto:chadblostone@cox.net]
Sent: Wednesday, May 29, 2013 8:31 AM
To: Terry
Subject: Re:

Do u have any idea who did the work? What type of contractor consults on this type of question?

------Original Message------
From: Terry Dugan. Golf course
To: Chad Blostone
Subject: RE:
Sent: May 29, 2013 8:07 AM

Chad,

Unfortunately that was 3 companies ago that did the drilling. I do not have access to those records; however I think the ADWR tracks all wells and what they produce.
>From my understanding of this area you would need to hit a fracture in order to get water. The current well that we have is in a fracture. Most everything north of Pecos and west of 40th Street is bedrock. The best and highest chance to get water in the sandy areas of the desert; which is everything south of Pecos Road.
I don't think that the water table moves as it always seeks the lowest point.

I hope this helps.

Terry Duggan
President
Foothills Golf Group
Foothills Golf Club



| Code | Issue | Response |
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| Code | Comment Document |
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RE: Re:

Ahwatukee Country Club
Club West Golf Club
The Lakes Golf Club
The Duke Golf Club
(O) 480-893-9772
(C) 480-862-2947
(F) 480-699-4490

-----Original Message-----
From: chadblostone@cox.net [mailto:chadblostone@cox.net]
Sent: Tuesday, May 28, 2013 11:44 PM
To: Terry
Subject:

Terry - can u send me the reports that show the test drilling coming up dry? Adot says they "assume" they can replace the well. They need to know they can't just simply drill anywhere on the course to replace. They need to study replacement sites off the foothills prior to making a decision to take the on site well.

Any chance those areas test drilled 14 yrs ago could now have water? Does the underground water table move?

Thx.

Sent on the Sprint(r) Now Network from my BlackBerry(r)

Sent on the Sprint(r) Now Network from my BlackBerry(r)



| Code | Issue | Response |
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**Attachments**

**Three**

Hydrologist Statement

| Code | Issue | Response |
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| Code | Comment Document |
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Foothills GC wells

522

**Subject:** Foothills GC wells
**From:** Marvin Glotfelty <MGlotfelty@clearcreekassociates.com>
**Date:** 6/12/2013 3:22 PM
**To:** "chadblostone@cox.net" <chadblostone@cox.net>

Chad,

As you requested, copies of the well reports that were done for your group back in 1995 and 1996 are attached. In general, groundwater resources become very sparse and uncertain to the north of Pecos Road, due to the shallow bedrock. It would be technically possible to drill a directional (slanted) well near the Pecos Road alignment that dipped into the region of the alluvial basin to the south. However, I would strongly recommend against that action without first obtaining approval from the Gila River Indian Community to the south, and also the Arizona Department of Water Resources. Otherwise, you may encounter substantial legal challenges to the water rights associated with the directional well. I hope this helps to clarify the situation for you.

Best regards,

Marvin

Marvin F. Glotfelty, R.G.
Principal Hydrogeologist
Clear Creek Associates
6155 E. Indian School Road, Suite 200
Scottsdale, AZ 85251
office: (480) 659-7131
cell: (602) 809-2219
email: mglotfelty@clearcreekassociates.com
**This e-mail sent by 100% solar energy**

Attachments:

| | |
|---|---|
| Well Completion Report for the Foothills Golf Club North and South Wells.pdf | 1.5 MB |
| Well Feasibility Well Siting Investigation 08.24.95.pdf | 978 KB |



| Code | Issue | Response |
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| 522 | | Hydrogeologist statement reviewed. |

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# Attachments

## Four

Well Completion Report for the Foothills Golf Club
North and South Wells dated April 23, 1996

| Code | Issue | Response |
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| Code | Comment Document |
|---|---|
| 523 | REGISTERED GEOLOGIST CERTIFICATE NO. 22744 MARVIN GLOTFELTY Date Signed 4-23-96 ARIZONA, U.S.A.<br><br>**WELL COMPLETION REPORT FOR THE FOOTHILLS GOLF CLUB NORTH AND SOUTH WELLS**<br><br>**April 23, 1996** |

| Code | Issue | Response |
|---|---|---|
| 523 | | Well completion report reviewed. |

| Code | Comment Document |
|---|---|

REGISTERED GEOLOGIST
CERTIFICATE NO. 22744
MARVIN GLOTFELTY
Date Signed 4-23-96
ARIZONA, U.S.A.

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**WELL COMPLETION REPORT FOR THE**
**FOOTHILLS GOLF CLUB**
**NORTH AND SOUTH WELLS**

**April 23, 1996**

Prepared for:

Cobblestone Golf Group
2201 East Clubhouse Drive
Phoenix, Arizona 85048

Prepared by:

Brown and Caldwell
3636 North Central Avenue
Suite 300
Phoenix, Arizona 85012
(602) 222-4444

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SECTION 2.0

DRILLING AND INSTALLATION OF THE NORTH WELL

## 2.1 BOREHOLE DRILLING

The pilot borehole for the North Well was drilled by Arizona Beeman Drilling Company of Apache Junction, Arizona utilizing an air rotary drilling technique with drilling foam added to the fresh water drilling fluid. A Gardner-Denver 1500 rotary rig was used to perform all work associated with the drilling and installation of the well. Brown and Caldwell personnel performed field inspection and documentation of the key field operations. Drilling and well installation operations were performed during daylight hours only (7:00 a.m. to 6:00 p.m.), Monday through Friday. Sound blankets were used to prevent rig noise from being a nuisance to neighboring residences.

Drilling of the pilot hole commenced on February 6, 1996, and was completed on February 8, 1996. A 14 3/4-inch diameter borehole was drilled to 20 feet below land surface (bls). A temporary surface casing was set to 20 feet bls using 10 3/4-inch outside diameter low-carbon steel casing. After the temporary surface casing was sealed with bentonite chips, the pilot hole was drilled using a 9 7/8-inch button bit from 20 feet bls to a depth of 190 feet bls. In order to increase the drilling rate, an 8-inch downhole hammer bit was used from 190 feet bls to the total depth of 400 feet bls.

Drilled cuttings were collected at 10-foot intervals throughout the pilot borehole. The samples were preserved in 4-inch by 6-inch cloth sample bags for future reference. An additional set of the drilled cutting samples was placed in specially-designed "ice cube tray" plastic containers, and submitted to Cobblestone personnel for archival purposes.

## 2.2 LITHOLOGIC LOG

A detailed lithologic log of the drilled cuttings from the North Well pilot hole is presented in Appendix A and is summarized below. From the land surface to 17 feet bls, the materials penetrated by the North Well are comprised of light brown felsic sands and fine to medium gravels. From 17 feet to 400 feet bls, bedrock was encountered which was comprised of dark green to black-colored clasts including amphibole, epidote, and biotite, with minor amounts of lighter-colored feldspar and quartz minerals. Pyrite minerals are present in the drill cuttings from about 120 feet bls to 400 feet bls in varying amounts. The bedrock is considered to be an amphibolite gneiss.

## 2.3 WELL INSTALLATION

The well casing installation at the North Well was conducted on February 16, 1996. A record drawing of the North Well is presented in Figure 1. The temporary casing was removed and the borehole reamed with a 14 3/4-inch mill tooth bit to approximately 60 feet bls. Low-carbon steel 10 3/4-inch outside diameter casing with 0.250-inch wall thickness was installed to 60 feet bls. Below 60 feet bls, the well was completed as an open borehole with no casing or screen. The annulus



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between the casing and the 14 3/4-inch borehole was sealed with cement grout from 60 feet bls to approximately 3 1/2 feet bls.

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SECTION 3.0

POST-CONSTRUCTION NORTH WELL ANALYSIS

### 3.1 PUMPING TEST

A modified step-rate discharge aquifer test was conducted at the North Well on March 12 and 13, 1996 to evaluate the production capability of the well and the optimum depth to set the permanent submersible pump. The data from the aquifer test were collected by Brown and Caldwell personnel with the pumping equipment supplied by Stewart Brothers Drilling Company of Milan, New Mexico. The pumping test data is presented in Appendix B.

The submersible pump was initially set and pumped at a shallow depth (60 feet bls), then progressively lowered and pumped at various pump-setting depths (100 feet, 200 feet and 300 feet bls) to help determine where the permanent pump can be set. A static water level of 48 feet bls was measured prior to the pumping test. At the various pump depth settings, the discharge rate varied from 45 gallons per minute (gpm) to 90 gpm. The discharge rates were calculated using a flow meter. At the pump settings of 60 feet and 100 feet, the groundwater level drawdown reached the submersible pump intake indicating the pump needed to be set at a lower depth. At a pump setting of 200 feet bls, the groundwater level drawdown in the well was 62 feet after 36 minutes of pumping at approximately 65 gpm. The pump was then lowered to 300 feet bls and pumped at a discharge rate of approximately 65 gpm. The water level drawdown after 44 minutes of pumping was approximately 68 feet.

On March 13, 1996, the pumping test resumed with the pump set at 300 feet bls. The groundwater level drawdown in the well was 66 feet after pumping at an average discharge rate of 61 gpm for 84 minutes. Throughout the test, the specific capacity of the well ranged from 0.8 gpm per foot of drawdown (gpm/ft) to 7.4 gpm/ft. A semi-log plot of the water level drawdown data for the North Well on March 13, 1996 is presented in Figure 2. Using the Cooper-Jacob method of analysis, the transmissivity of the aquifer was calculated to be approximately 380 gallons per day per foot (gpd/ft) as shown in Figure 2. At the conclusion of the pumping test, the water level drawdown recovery was recorded. A semi-log plot of the water level recovery data (Theis Recovery Plot) is presented in Figure 3. Utilizing the Theis Recovery Plot, the transmissivity value was calculated to be approximately 290 gallons per day per foot (gpd/ft) as shown in Figure 3. The calculated transmissivity values are based on a short-term pumping test and the basic assumption that the fractures are interconnected and behave as porous medium. Therefore, these values may vary after long-term pumping due to dewatering of fractures or when other hydrogeologic boundaries are encountered.



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SECTION 4.0

NORTH WELL RECOMMENDATIONS

4.1 PUMP SETTING AND DISCHARGE RATE

Based on the data and analyses presented herein, Brown and Caldwell recommends that the North Well be equipped with a permanent submersible pump capable of producing up to 55 gallons per minute (gpm). The permanent pump equipment should be set at a depth no less than 300 feet bls in order to supply the minimum "net positive suction head" necessary to avoid cavitation in the submersible pump. The pumping water level should not be allowed to drop to within 40 feet above the pump intake. This value is variable and depends upon the pump equipment installed and should be verified at the time of installation. It should also be noted that the pumping test was not a long-term test and continuous long-term pumping of the well may result in greater drawdown than was recorded during the test. As a result, it is also recommended that the well be initially pumped on an 8- to 12-hour cycle to allow for additional well performance evaluation.



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## SECTION 5.0

## DRILLING AND ABANDONMENT OF THE SOUTH WELL

### 5.1 BOREHOLE DRILLING

The drilling of the South Well was conducted by Stewart Brothers Drilling Company. The pilot borehole was drilled using a Gardner-Denver 1500 drill rig using the air hammer drilling method. Brown and Caldwell personnel performed field inspection and documentation of the key field operations. Drilling operations were performed during daylight hours (7:00 a.m. to 6:00 p.m.) Monday through Friday.

Drilling of the pilot hole commenced on March 26, 1996, and was completed on March 29, 1996. A 13 3/4-inch diameter pipe was driven to the top of bedrock which was approximately 50 feet bls to help stabilize the hole. A 7-inch diameter liner was installed to 50 feet bls inside the 13 3/4-inch pipe to help facilitate circulation of fluids during the drilling process. The pilot hole was then drilled using a 6 1/4-inch downhole hammer from 50 feet bls to the total depth of 400 feet bls.

Drilled cuttings were collected at 10-foot intervals throughout the pilot borehole. The samples were preserved in 4-inch by 6-inch cloth sample bags for future reference. An additional set of the drilled cutting samples was placed in specially-designed "ice cube tray" plastic containers and submitted to Cobblestone personnel for archival purposes. A detailed lithologic log of the drilled cuttings from the South Well pilot hole is presented in Appendix C. In general, from the surface to 48 feet bls, the materials penetrated by the South Well are comprised of light brown to pink felsic sands and fine gravels. From 48 feet to 400 feet bls, bedrock was encountered which was comprised of dark green to gray colored clasts including epidote, biotite, and amphibole with minor amounts of lighter-colored feldspar and quartz minerals. The bedrock is considered to be an amphibolite gneiss.

### 5.2 BOREHOLE ABANDONMENT

During the drilling of the pilot hole the water production of the borehole was monitored. No notable fractures yielding significant groundwater were encountered during the drilling process. At 400 feet bls, the well was developed by airlifting for approximately 1 hour with no significant improvement in groundwater production. The borehole was backfilled with drilled cuttings and abandoned per Arizona Department of Water Resources requirements (Arizona Administrative Code R12-15-816).



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| | FIGURES |

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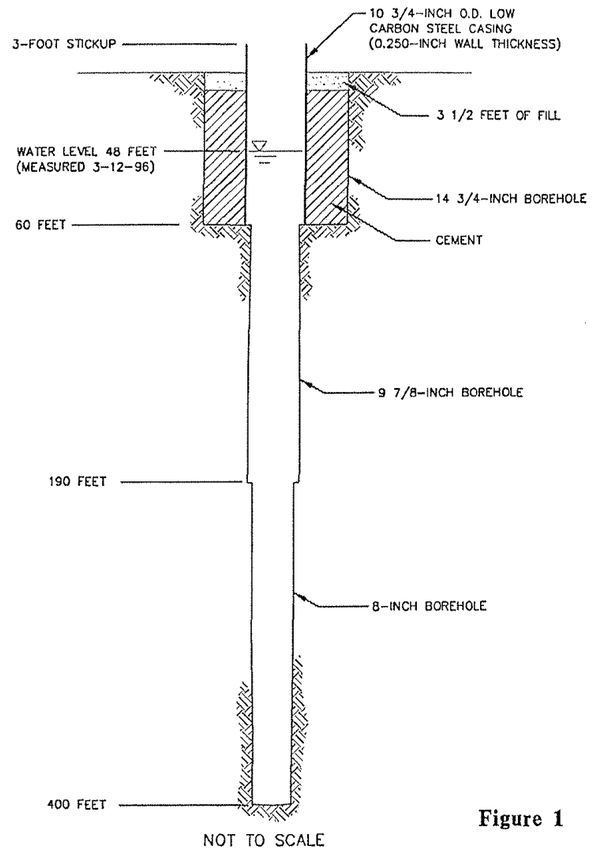


**Figure 1**

**FOOTHILLS NORTH WELL**
**RECORD DRAWING**

NOTE:
O.D. = OUTSIDE DIAMETER
LOCATION: D(1-3)34bdd
ADWR REGISTRATION NO. 55-552480

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THE FOOTHILLS
GOLF CLUB
Cobblestone Golf Group

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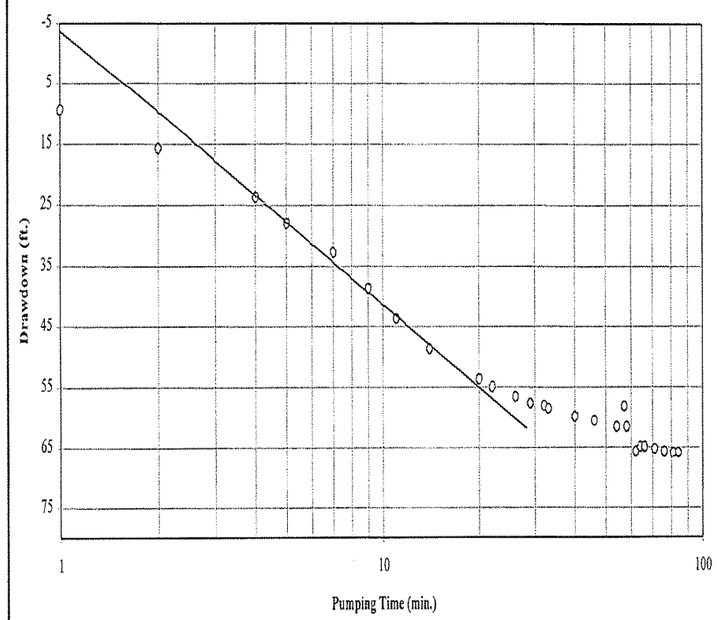
Figure 2. Foothills North Well
Cooper-Jacob Plot
March 13, 1996




$\Delta s$ = change in drawdown over one log cycle
Q = average discharge rate (gpm)
T = Transmissivity = 264Q/$\Delta s$ (gpd/ft)

T = (264)(65)/45
T = 381 gpd/ft

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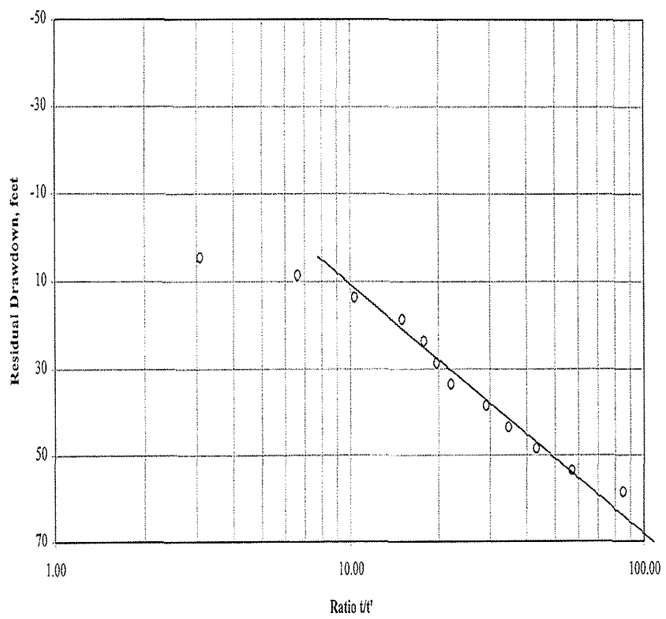
Figure 3. Foothills North Well
Recovery Test Data
March 13, 1996




Δs= change in residual drawdown over one log cycle
Q=weighted average discharge rate (gpm)
T=Transmissivity = 264Q/Δs (gpd/ft)

T=(264)(61)/(56)
T=288 gpd/ft

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| | APPENDICES |

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APPENDIX A

LITHOLOGIC LOG
FOOTHILLS NORTH WELL

| Code | Issue | Response |
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WELL NO. North Page 1 of 3

| | | | |
|---|---|---|---|
| Project: Cobblestone Golf Group | Location: D(1-3)34bdd | Elevation: ~1225 ft MSL | Project No.: 2906 |
| Drilling Co.: Ariz. Beeman Drilling | Drilling Equipment: Gardner-Denver 1500 | Date Started: 2/6/96 | Date Finished: 2/8/96 |
| Conductor Casing: — | Casing: 10.75" OD LCS 0-60 Ft b/s | Screen: N/A OPEN HOLE | |
| Filter Pack: NONE | Logged By: R. Roessel | Drilling Method: Air Rotary | |
| | Geophysical Logs: — | Drilling Fluid: Air | |
| Annular Seal: CEMENT GROUT | Development: Air lift | Completion Depth: 400 Ft b/s | |
| | | Water Level: 51 Ft b/s | |

| Description | Depth (ft) | Drill Rate | Remarks |
|---|---|---|---|
| GRAVELLY SAND - 60% very coarse to coarse, poorly sorted to well sorted sand, primarily felsic w/ minor mafic components, 30% fine gravel, primarily felsic, 10% fine sand - calcareous (5YR 4/4) Increase in fine gravel (2-6mm) | 0 | | 2/6/96 Begin drilling @ 11AM Drilling w/ 6 5/8" bit, Drilled to 80 ft. Changed to 14 3/4" mill tooth bit, reamed to 20 ft. Set temporary surface casing, changed to 9 7/8" button bit to drill to bottom of hole. |
| | 10 | | |
| Green to dark green (5Y 4/1) clasts of opiboate, biotite, amphibole, (60%) and clasts of feldspar and quartz (40%) | 20 | | |
| | 30 | | |
| | 40 | | According to driller - drilling becomes hard + slow @ 40-50 ft. b/s |
| | 50 | | |
| | 60 | | |
| | 70 | | |
| Becomes dark green to black (5Y 3/1) | 80 | | Changed to 9 7/8" button bit - larger chips |
| | 90 | | |
| | 100 | | ~105 ft. increase in water - fractures |
| Increase in quartz clasts (30-40%) from 110-120' | 110 | | - measured discharge ~20 gpm<br>- 115 ft. increase in water - fractures |
| Minor pyrite present | 120 | | ~125 ft Drilling becomes hard + slow |

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WELL NO. North Page 2 of 3

| Description | Depth (ft) | Drill Rate | Remarks |
|---|---|---|---|
| 70% dark colored clasts containing biotite, amphibole and epidote with 30% quartz and feldspar clasts, with minor pyrite | 130 | | 2/7/96 Hard slow drilling - rig chatter |
| | 140 | | Drilling eased up @ 147 ft. |
| | 150 | | |
| | 160 | | |
| | 170 | | |
| | 180 | | |
| | 190 | | Changed to 6½" Hammer bit measured discharge @ ~75 gpm |
| | 200 | | |
| | 210 | | |
| | 220 | | |
| | 230 | | |
| | 240 | | 2/8/96 |
| | 250 | | |
| | 260 | | |
| Decrease in quartz from 270-280' | 270 | | |
| | 280 | | |
| | 290 | | |
| | 300 | | |

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WELL NO. North Page 3 of 3

| Description | Depth (ft) | Drill Rate | Remarks |
|---|---|---|---|
| | 310 | | |
| increase in quartz (~ 40%/60%) from 320 Ft - 340ft. | 320 | | |
| | 330 | | |
| same as 130' interval | 340 | | |
| | 350 | | |
| | 360 | | |
| | 370 | | |
| | 380 | | measured discharge @ 70 gpm |
| | 390 | | |
| | 400 | | Total Depth ⇒ 400 ft. |

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APPENDIX B

AQUIFER TEST DATA
FOOTHILLS NORTH WELL

| Code | Issue | Response |
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AQUIFER TEST DATA

Page 1 of 5

| | | | |
|---|---|---|---|
| Project: Cobblestone Golf Group | Project No.: 2906 | | Static Water Level: 47.74 ft. 10:00 AM 3/12/96 |
| Well Location: D(1-3)34bdd | Well No.: Foothills North Well | | Measuring Point: 39.5" Above ground surface |
| Well Diameter: 0-60' 10"; 60'-190' 9 7/8"; 190'-400' 8" | Measured By: MLD | | Elevation Measuring Point: top of casing |
| Pump Setting: variable | Pump On: Date 3/12/96 | Time: 10:10 AM | Available Drawdown: |
| Screen Interval(s): 60'-400' openhole | Final Pump Off: Date 3/13/96 | Time: 11:23 AM | Distance From Pumping Well: NA |
| How Q Measured: Flow Meter | Duration of Aquifer Test: ~ 10 Hours | | |

| Clock Time | Watch Time (t) (minutes) | Recovery Time (t') (minutes) | t/t' | Sounder Reading (feet) | Corrections (feet) | Water Level (feet) | Drawdown (feet) | Discharge (gpm) | Specific Capacity (gpm/ft) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| 10:11 | 1 | | | 58.1 | 3.3ft. | 54.8 | 7.1 | 45 | 6.4 | Pump set @ 60 ft. |
| 10:12 | 2 | | | 59.9 | | 56.6 | 8.9 | 45 | 5.1 | |
| 10:13 | 3 | | | 65.7 | | 62.4 | 14.7 | 45 | 3.1 | stopped pump |
| | | | | | | | | | | drawdown to pump |
| 10:15 | 5 | | | 58.3 | | 55.0 | 7.3 | | | |
| 10:16 | 6 | | | 56.7 | | 53.4 | 5.7 | | | |
| 10:17 | 7 | | | 55.6 | | 52.3 | 4.6 | | | |
| 10:18 | 8 | | | 54.7 | | 51.4 | 3.7 | | | |
| 10:20 | 10 | | | 53.51 | | 50.2 | 2.5 | | | |
| Move pump to 100 ft. | | | | | | | | | | |
| 10:35 | 25 | | | 51.4 | | 48.1 | 0.4 | | | Begin Pumping |
| 10:39 | 29 | | | 56.73 | | 53.4 | 5.7 | | | |
| 10:40 | 30 | | | 61.78 | | 61.5 | 13.7 | 10 | 5.1 | |
| 10:41 | 31 | | | 62.9 | | 63.6 | 15.9 | 60 | 3.8 | |
| 10:42 | 32 | | | 64.2 | | 63.9 | 16.2 | 65 | 4.0 | |
| 10:43 | 33 | | | 66.72 | | 65.4 | 17.7 | 65 | 3.7 | |
| 10:44 | 34 | | | 71.33 | | 68.0 | 20.3 | 65 | 3.2 | |
| 10:50 | 40 | | | 93.00 | | 89.7 | 42.0 | 65 | 1.5 | Water Cloudy White. |
| 10:51 | 41 | | | 95.20 | | 91.9 | 44.2 | 65 | 1.5 | |
| 10:52 | 42 | | | 93.90 | | 89.9 | 42.2 | 65 | 1.3 | stop pumping |
| 10:53 | 43 | | | 91.74 | | 88.5 | 40.7 | | | |
| 10:54 | 44 | | | 87.00 | | 83.7 | 36.0 | | | |
| 10:55 | 45 | | | 82.00 | | 78.7 | 31.0 | | | |
| 10:57 | 47 | | | 62.00 | | 63.7 | 16.0 | | | |

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AQUIFER TEST DATA

Page 2 of 3

| Clock Time | Watch Time (t) (minutes) | Recovery Time (t') (minutes) | t/t' | Sounder Reading (feet) | Corrections (feet) | Water Level (feet) | Drawdown (feet) | Discharge (gpm) | Specific Capacity (gpm/ft) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| 1058 | 48 | | | 69.67 | 3.3 ft | 61.4 | 13.6 | | | |
| 1059 | 49 | | | 60.00 | | 56.7 | 9.0 | | | |
| 1100 | 50 | | | 55.00 | | 51.7 | 4.0 | | | |
| Moving Pump to 200 ft | | | | | | | | | | |
| 1131 | 81 | | | 52.32 | | 49.0 | 1.3 | | | |
| 1133 | 83 | | | 59.9 | | 56.5 | 8.8 | 65 | 7.4 | Turn on Pump @ 200' |
| 1134 | 84 | | | 72.35 | | 69.1 | 21.3 | 65 | 3.1 | |
| 1135 | 85 | | | 78.71 | | 75.4 | 27.7 | 65 | 2.3 | |
| 1136 | 86 | | | 84.30 | | 85.0 | 37.3 | 65 | 1.7 | |
| 1137 | 88 | | | 93.54 | | 90.3 | 42.5 | 65 | 1.5 | Cond X1000 |
| 1140 | 90 | | | 95.90 | | 92.6 | 44.9 | 65 | 1.4 | Temp Stand. 77°F |
| 1142 | 92 | | | 100.65 | | 97.4 | 49.6 | 65 | 1.3 | pH @ 77°F |
| 1143 | 93 | | | 103.40 | | 100.1 | 52.4 | 65 | 1.2 | |
| 1146 | 96 | | | 106.56 | | 103.3 | 55.5 | 65 | 1.2 @ 1146 | Cond. 7.27 Cloudy |
| 1149 | 99 | | | 108.50 | | 105.2 | 57.5 | 65 | 1.1 | Temp 81.9 White |
| 1150 | 100 | | | 110.65 | | 107.3 | 59.5 | 65 | 1.1 | pH 7.63 |
| 1154 | 104 | | | 111 | | 107.7 | 60.0 | 65 | 1.1 | cond 7.05 Temp 79.1 |
| 1154 | 108 | | | 110.98 | | 107.7 | 59.9 | 65 | 1.1 | pH 7.18 $H_2O$ clearing |
| 1202 | 112 | | | 112.96 | | 109.3 | 61.5 | 65 | 1.1 | Still cloudy white |
| 1207 | 117 | | | 113.70 | | 109.4 | 61.7 | 65 | 1.1 | cond 6.85 Temp 77.6 |
| Increase to 90 gpm. (Maximum output for this pump) | | | | | | | | | | pH 7.04 |
| 1209 | 119 | | | 113.3 | | 110.0 | 62.3 | 90 | 1.4 | |
| 1212 | 122 | | | 97.0 | | 86.7 | 41.0 | | | Pump shut off |
| 1335 | 205 | | | 53.22 | | 49.9 | 2.2 | | | Cond clear, $H_2O$ cascades |
| 1404 | 234 | | | ~~52.85~~ | 52.75 | 49.5 | 1.7 | | | into hole. |
| | | | | | | | | | | Pump @ 299' |
| 1406 | 236 | | | 52.75 | | 49.5 | 1.7 | | | |
| 1408 | 238 | | | 61.90 | | 58.6 | 10.9 | 65 | 6.0 | Begin pumping |
| 1409 | 239 | | | 68.85 | | 65.6 | 17.8 | 65 | 3.6 | |
| 1410 | 240 | | | 75.12 | | 71.8 | 24.1 | 65 | 2.7 | cond 7.29 |
| 1411 | 241 | | | 83.14 | | 79.9 | 32.1 | 65 | 2.0 | Temp 82.2 |
| 1412 | 242 | | | 87.94 | | 84.7 | 36.9 | 65 | 1.8 | pH 7.03 |

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| Code | Issue | Response |
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AQUIFER TEST DATA

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| Clock Time | Watch Time (t) (minutes) | Recovery Time (t') (minutes) | t/t' | Sounder Reading (feet) | Corrections (feet) | Water Level (feet) | Drawdown (feet) | Discharge (gpm) | Specific Capacity (gpm/ft) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| 1414 | 244 | | | 96.00 | 3.3 Ft. | 92.7 | 45.0 | 65 | 1.4 | |
| 1416 | 246 | | | 98.77 | | 95.5 | 47.7 | 65 | 1.4 | |
| 1418 | 248 | | | 103.72 | | 100.4 | 52.7 | 65 | 1.2 | |
| 1420 | 250 | | | 106.03 | | 102.7 | 55.0 | 65 | 1.2 | |
| 1422 | 252 | | | 107.80 | | 104.5 | 56.8 | 65 | 1.1 | |
| 1426 | 256 | | | 111.60 | | 108.3 | 60.6 | 65 | 1.1 | |
| 1429 | 259 | | | 112.90 | | 109.6 | 61.9 | 65 | 1.1 | Water Milky White |
| 1432 | 262 | | | 114.35 | | 111.1 | 63.3 | 65 | 1.0 | Cond. 6.84 Temp 79.7 |
| 1437 | 267 | | | 116.22 | | 112.9 | 65.2 | 65 | 1.0 | pH 7.24 |
| 1442 | 272 | | | 117.60 | | 114.4 | 66.6 | 65 | 1.0 | After settling for 5 mins |
| 1447 | 277 | | | 119.55 | | 115.3 | 67.5 | 65 | 1.0 | Water Turned clear |
| 1450 | 280 | | | 109.00 | | 105.7 | 580 pump shut off | | | Water Milky White |
| 1451 | 281 | | | 107.00 | | 103.7 | 560 | 0 | | Cond 6.7 Temp 79.5 pH 7.09 |
| 1455 | 285 | | | 85.00 | | 81.7 | 34.0 | 0 | | |
| 1500 | 290 | | | 60.43 | | 57.1 | 9.4 | 0 | | Can hear water coming into hole alot at first now just a trickling sound. |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| 1533 | 323 | | | 55.02 | | 51.7 | 4.0 | Stable | | Start Pumping @ 249' |
| 1536 | 326 | | | 79.47 | | 76.2 | 28.4 | 65 | 2.3 | |
| 1539 | 329 | | | 94.20 | | 90.9 | 43.2 | 65 | 1.5 | |
| 1542 | 332 | | | 99.10 | | 95.8 | 48.1 | 65 | 1.4 | Cond 6.65 Temp 78.9 |
| 1548 | 338 | | | 110.7 | | 107.4 | 59.7 | 65 | 1.1 | pH 6.96 Milky white |
| 1555 | 345 | | | 114.91 | | 111.5 | 63.8 | 65 | 1.0 | Increase Flow |
| 1600 | 350 | | | 117.00 | | 113.7 | 66.0 | 65 | 1.0 | pH 6.99 Cond 6.55 |
| 1607 | 357 | | | 119.91 | | 115.6 | 67.9 | 65 | 1.0 | Temp 78.8. |
| 1611 | 361 | | | 119.4 | | 116.1 | 68.4 | 65 | 1.0 | Milky White is going |
| 1615 | 365 | | | 96.1 | | 92.8 | 45.1 | pump shut off (Equipment) | | air bubbles. |
| 1617 | 367 | | | 82.00 | | 78.7 | 31.0 | 0 | | |
| 1618 | 368 | | | 75.00 | | 71.7 | 24.0 | 0 | | |
| 1619 | 369 | | | 70.00 | | 66.7 | 19.0 | 0 | | |

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BROWN AND CALDWELL

| Code | Issue | Response |
|---|---|---|

| Code | Comment Document |
|---|---|

AQUIFER TEST DATA

Page 4 of 5

| Clock Time | Watch Time (t) (minutes) | Recovery Time (t') (minutes) | t/t' | Sounder Reading (feet) | Corrections (feet) | Water Level (feet) | Drawdown (feet) | Discharge (gpm) | Specific Capacity (gpm/ft) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| 1622 | 372 | | | 65.00 | 3.3 ft | 61.7 | 14.0 | 0 | | |
| 1629 | 379 | | | 60.00 | | 56.7 | 9.0 | 0 | | |
| 1647 | 397 | | | 56.65 | | 53.4 | 5.6 | 0 | | |
| 3-13-96 | Test 5 | | | | | | | | | |
| 0706 | | | | 51.32 | | 48.02 | | 0 | | Begin New Test |
| | | | | | | | | 0 | | Pump Not Working |
| 0959 | | | | 51.53 | | 48.23 | | 0 | | Start Pumping |
| 1000 | 1 | | | 60.78 | | 57.5 | 9.5 | 65 | 6.9 | |
| 1001 | 2 | | | 67.00 | | 63.7 | 15.7 | 65 | 4.1 | |
| 1003 | 4 | | | 75.00 | | 71.7 | 23.7 | 65 | 2.7 | cond 8.13 |
| 1004 | 5 | | | 79.25 | | 76.0 | 27.9 | 65 | 2.3 | Tem 80.4 |
| 1006 | 7 | | | 84.00 | | 80.7 | 32.7 | 65 | 2.0 | pH 7.28 |
| 1008 | 9 | | | 90.00 | | 86.7 | 38.7 | 65 | 1.7 | Slightly Cloudy (white) |
| 1010 | 11 | | | 95.00 | | 91.8 | 43.8 | 65 | 1.5 | |
| 1013 | 14 | | | 100.00 | | 96.7 | 48.7 | 65 | 1.3 | |
| 1019 | 20 | | | 105.00 | | 101.7 | 53.7 | 65 | 1.2 | Cond 7.13 |
| 1021 | 22 | | | 106.33 | | 103.0 | 55.0 | 65 | 1.2 | Temp 81.3 |
| 1025 | 26 | | | 108.00 | | 104.7 | 56.7 | 65 | 1.1 | pH 6.97 |
| 1028 | 29 | | | 109.00 | | 105.7 | 57.7 | 65 | 1.1 | Slightly Cloudy (white) clears |
| 1031 | 32 | | | 109.50 | | 106.2 | 58.2 | 65 | 1.1 | after 2 mins. |
| 1032 | 33 | | | 110.00 | | 106.7 | 58.7 | 65 | 1.1 | Cond 6.66 Temp 78.1 |
| 1039 | 40 | | | 111.20 | | 107.9 | 59.9 | 65 | 1.1 | pH 6.9. Slightly Cloudy (wh. |
| 1045 | 46 | | | 112.00 | | 108.7 | 60.7 | 65 | 1.1 | Clear in 2 mins. |
| 1053 | 54 | | | 113.00 | | 109.7 | 61.7 | 65 | 1.1 | |
| 1056 | 57 | | | 109.65 | | 106.4 | 58.3 | 50 | 0.9 | |
| 1057 | 58 | | | 113.00 | | 109.7 | 61.7 | 65 | 1.1 | |
| 1101 | 62 | | | 117.00 | | 113.7 | 65.7 | 50 | 0.8 | |
| 1103 | 64 | | | 116.29 | | 113.0 | 65.0 | 55 | 0.8 | |
| 1105 | 66 | | | 116.28 | | 113.0 | 65.0 | 55 | 0.8 | |
| 1110 | 71 | | | 116.60 | | 113.3 | 65.3 | 55 | 0.8 | Temp 77.6 Cond 6.38 |
| 1115 | 76 | | | 117.00 | | 113.7 | 65.7 | 55 | 0.8 | pH 6.91 |
| 1120 | 81 | | | 117.20 | | 113.9 | 65.9 | 53 | 0.8 | |
| 1123 | 84 | | | 117.25 | | 114.0 | 65.9 | 53 | 0.8 | End Test. |

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BROWN AND CALDWELL

| Code | Issue | Response |
|---|---|---|

| Code | Comment Document |
|---|---|

AQUIFER TEST DATA

Page 5 of 5

| Clock Time | Watch Time (t) (minutes) | Recovery Time (t') (minutes) | t/t' | Sounder Reading (feet) | Corrections (feet) | Water Level (feet) | Drawdown (feet) | Discharge (gpm) | Specific Capacity (gpm/ft) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| 1124:00 | 85 | 1 | 85 | 110 | 3.34 | 106.7 | 56.7 | | | Recovery Test |
| 1124:30 | 85.5 | 1.5 | 57 | 105 | / | 101.7 | 53.7 | | | |
| 1125:00 | 86 | 2 | 43 | 100 | / | 96.7 | 48.7 | | | |
| 1125:30 | 86.5 | 2.5 | 34.6 | 95 | / | 91.7 | 43.7 | | | |
| 1126:00 | 87 | 3 | 29 | 90 | / | 86.7 | 38.7 | | | |
| 1127:00 | 88 | 4 | 22 | 85 | / | 81.7 | 33.7 | | | |
| 1127:30 | 88.5 | 4.5 | 19.7 | 80 | / | 76.7 | 28.7 | | | |
| 1128:00 | 89 | 5 | 17.8 | 75 | / | 71.7 | 23.7 | | | |
| 1129:00 | 90 | 6 | 15 | 70 | / | 66.7 | 18.7 | | | |
| 1132:00 | 93 | 9 | 10.3 | 65 | / | 61.7 | 13.7 | | | |
| 1138:00 | 99 | 15 | 6.6 | 60 | / | 56.7 | 8.7 | | | |
| 1205:00 | 126 | 41 | 3.1 | 56 | / | 52.7 | 4.7 | | | End of Recovery Test |

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BROWN AND CALDWELL

| Code | Issue | Response |
|---|---|---|

| Code | Comment Document |
|---|---|

APPENDIX C

LITHOLOGIC LOG
FOOTHILLS SOUTH WELL

| Code | Issue | Response |
|---|---|---|

| Code | Comment Document |
|---|---|

WELL NO. South Well Page 1 of 3

| | | | |
|---|---|---|---|
| Project Cobblestone Golf Group | Location D(1-3)34dca | Elevation ~ 1180 ft msl | Project No. 2906 |
| Drilling Co. Stewart Brothers Drilling | Drilling Equipment Gardner-Denver 1500 | Date Started 3/26/96 | Date Finished 3/29/96 |
| Conductor Casing NA | Casing NA | Screen NA | |
| Filter Pack NA | Logged By R. Roesel | Drilling Method Air Hammer/Rotary | |
| | Geophysical Logs NA | Drilling Fluid Air | |
| Annular Seal Abandoned per ADWR A.A.C. R12-15-816. | Development NA | Completion Depth 400 ft. b/g | |
| | | Water Level 116.1 ft b/g | |

| Description | Depth (ft) | Drill Rate | Remarks |
|---|---|---|---|
| GRAVELLY SAND - 70% coarse to very coarse, poorly sorted sand, predominantly felsic with quartz, k-spar (5YR 5/4) 30% fine to v.fine sand | 0 | | 3/26/96 Begin Drilling - Drive 13 3/8" pipe to 50 ft. Install 7" liner to 50 ft. Begin drilling w/ 6 3/4" downhole hammer. No sample collected |
| | 10 | | |
| | 20 | | NO Sample collected, cuttings primarily felsic sand |
| Increase in dark minerals (5GY 4/1) | 30 | | |
| | 40 | | |
| 60% dark green to black (5GY 4/1) clasts containing epidote, biotite, amphibole, with 40% clasts of quartz and feldspar | 50 | | Bedrock - Hard drilling @ 48 ft. 3/27/96 |
| | 60 | | |
| | 70 | | |
| | 80 | | |
| | 90 | | |
| | 100 | | |
| | 110 | 50 ft/hr | |
| | 120 | 120 ft/hr | First Water @ 125 ft. |

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BROWN AND CALDWELL

| Code | Issue | Response |
|---|---|---|

| Code | Comment Document |
|---|---|

WELL NO. South Well Page 2 of 3

| Description | Depth (ft) | Drill Rate | Remarks |
|---|---|---|---|
| | 130 | 60 ft/hr | |
| | 140 | 30 ft/hr | |
| increase in dark green to black clasts of epidote, biotite and amphibole (75%) quartz and feldspar (25%) | 150 | 60 ft/hr | |
| | 160 | | |
| | 170 | | |
| | 180 | 67 ft/hr | |
| | 190 | 50 ft/hr | 3/28/96 |
| | 200 | | |
| | 210 | | |
| | 220 | | |
| | 230 | | |
| | 240 | | |
| | 250 | | |
| | 260 | | |
| | 270 | | |
| | 280 | | |
| | 290 | | |
| | 300 | | |

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BROWN AND CALDWELL

| Code | Issue | Response |
|---|---|---|

| Code | Comment Document |
|---|---|

WELL NO. South Wall Page 3 of 3

| Description | Depth (ft) | Drill Rate | Remarks |
|---|---|---|---|
| | 310 | | 3/29/96 |
| | 320 | 16 Ft/HR | |
| change in color to light green to green (5G 7/1) | 330 | 24 Ft/HR | |
| | 340 | 25 Ft/HR | |
| | 350 | 21 Ft/HR | |
| | 360 | 20 Ft/HR | measured discharge @ 5 gpm |
| | 370 | 25 Ft/HR | |
| increase in dark green to black minerals, with minor quartz. | 380 | 22 Ft/HR | |
| increase in quartz (40%) w/ dark green to black minerals (60%) | 390 | 27 Ft/HR | |
| | 400 | 21 Ft/HR | Total depth 400 Ft. measured discharge @ 7 gpm |

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BROWN AND CALDWELL

| Code | Issue | Response |
|---|---|---|

| Code | Comment Document |
|---|---|

## Attachments

### Five

South Mountain Land Acquisitions - The spreadsheet was created by ADOT on June 11, 2013.0It has W in the right side if it is a parcel in the western alignment; it has an E in the right side if it is a parcel in the eastern alignment. Parcels 7-11316 and 7-10612 are two parcels in the western alignment that were not included in the spreadsheet. The parcel transmittal sheet for each is also attached.

| Code | Issue | Response |
|---|---|---|

| Code | Comment Document |
|---|---|

*South Mountain Acquisitions*

*Sorted by Acquisition Date*

06/11/13

| PARCEL | TRACS | OWNER | ACQUISITION DATE | ACQUISITION COST | |
|---|---|---|---|---|---|
| ✓7-04226 | H087201R | ESTATE OF AMCOR INVESTMENTS CORP | 09/25/86 | $7,371,339.00 | E |
| ✓7-05060 | H543901R | FOOTHILLS JOINT VENTURE | 02/29/88 | $18,046,663.15 | E |
| 7-05914 | H543901R | TOM L MILLS ET UX | 06/16/88 | $568,713.00 | W |
| 7-05933 | H543901R | PHOENIX FIRESTONE TIRE | 10/27/88 | $412,050.25 | W |
| 7-06376 | H543901R | ANNE L LEWIS | 07/19/90 | $215,213.75 | W |
| 7-05060-A | H543901R | FOOTHILLS JOINT VENTURE | 08/02/90 | $904.00 | E |
| 7-07169 | H543901R | EARL H GOODMAN JR | 11/04/93 | $52,622.74 | W |
| 7-07577 | H087201R | GWENDOLYN E MASON TRUST | 01/23/98 | $9,751.00 | E |
| 7-09912 | H543901R | HIGHLAND RIDGE CONST COMPANY LLC | 11/09/01 | $2,092,250.08 | W |
| 7-10463 | H543901R | PATTERSON BRIAN G ET UX | 04/19/06 | $1,961,545.00 | E |
| 7-10466 | H543901R | PERKOFSKI RYAN | 05/25/06 | $446,419.95 | E |
| 7-10467 | H543901R | DEL E WEBB FOOTHILLS CORPORATION | 06/15/06 | $8,087.12 | E |
| 7-10465 | H543901R | WALKER ROBERT L ET UX | 07/28/06 | $448,370.55 | E |
| 7-10531 | H543901R | SHOTT CHARLES E & SHELLEY L | 02/26/07 | $424,108.84 | E |
| 7-10544 | H543901R | KRAEMER ANTHONY K | 04/11/07 | $368,192.50 | E |
| 7-10489 | H543901R | RENDINA JR VICTOR ET UX | 05/24/07 | $370,506.17 | E |
| 7-10534 | H543901R | GOODMAN MICHAEL S | 06/01/07 | $338,454.50 | E |
| 7-10537 | H543901R | DOUGLAS DALE | 06/05/07 | $954,653.00 | E |
| 7-10601 | H543901R | JTK HOLDINGS, LLC | 06/08/07 | $384,421.00 | E |
| 7-10538 | H543901R | CARDELLENI DENNIS R ET UX | 06/14/07 | $459,733.50 | E |
| 7-10539 | H543901R | HOLLAND PETER M ET UX | 06/20/07 | $471,833.00 | E |
| 7-10536 | H543901R | AUTREY STEPHEN ET UX | 06/22/07 | $464,886.00 | E |
| 7-10605 | H543901R | SCHILKE CODY W | 07/03/07 | $578,720.00 | E |
| 7-10535 | H543901R | DESERT LAKES CUSTOM HOMES LLC | 08/28/07 | $470,452.74 | E |
| 7-10768 | H543901R | NELSON JEFFREY J | 08/29/07 | $544,968.44 | E |
| 7-10765 | H543901R | WHITTY FAMILY TRUST | 10/09/07 | $1,075,761.29 | E |
| 7-10600 | H543901R | JR SKAGGS PROPERTIES LLC | 10/19/07 | $588,362.42 | W |
| 7-10796 | H543901R | SMITH CECIL A ET UX | 11/13/07 | $345,010.93 | E |
| 7-10607 | H543901R | SPEEDCO INC | 12/20/07 | $3,035,462.72 | W |
| 7-10612 | H543901R | FRED AND HELEN J MARTINEZ FAMILY TR | 12/21/07 | $1,334,504.74 | W |
| 7-10804 | H543901R | SMITH RUTH ANN | 03/10/08 | $322,625.67 | E |
| 7-10806 | H543901R | CUNNINGHAM PHILIP S | 03/25/08 | $355,921.33 | E |
| 7-10805 | H543901R | PANDYA MAHENDRAKUMAR S ET UX | 04/18/08 | $321,568.89 | E |
| 7-10869 | H543901R | JENSEN CHARLOTTE C | 05/23/08 | $322,778.50 | E |
| 7-10870 | H543901R | PONGRATZ STEPHEN P ET AL | 05/30/08 | $470,989.95 | E |
| 7-10802 | H543901R | AHWATUKEE LAND INVESTMENTS LLC | 06/12/08 | $367,158.83 | E |



| Code | Issue | Response |
|---|---|---|

| Code | Comment Document |
|---|---|

*South Mountain Acquisitions*

*Sorted by Acquisition Date*

06/11/13

| PARCEL | TRACS | OWNER | ACQUISITION DATE | ACQUISITION COST | |
|---|---|---|---|---|---|
| 7-10892 | H543901R | THE MCCARRON FAMILY TRUST | 09/28/08 | $333,245.25 | E |
| 7-10888 | H543901R | KING TROY | 09/30/08 | $348,183.63 | E |
| 7-10889 | H543901R | KRISTENSEN STEWART | 10/09/08 | $222,641.48 | E |
| 7-10890 | H543901R | BRENNAR ADAM J | 10/16/08 | $287,966.75 | E |
| 7-10891 | H543901R | MARKWELL DAVID R ET UX | 10/20/08 | $468,812.16 | E |
| 7-10906 | H543901R | THE JACKSON FAMILY TRUST | 10/22/08 | $252,197.71 | W |
| 7-10940 | H543901R | NAGLE CHRISTOPHER S ET AL | 12/02/08 | $287,756.79 | E |
| 7-10871 | H543901R | DONAHUE SR EARL R ET UX | 12/18/08 | $15,038,796.01 | W |
| 7-10984 | H543901R | CRIDDLE JOHN GARY ET AL | 12/23/08 | $282,666.37 | E |
| 7-10803 | H543901R | CRAIG THOMAS C ET UX | 02/04/09 | $263,682.55 | E |
| 7-10986 | H543901R | WOODSIDE 20/25 LLC | 04/23/09 | $999,186.40 | E |
| 7-10784 | H543901R | BERENDO PROPERTY | 05/08/09 | $3,003,623.00 | W |
| 7-11317 | H543901R | DUNNE, KATRINA | 07/06/10 | $240,361.25 | E |
| 7-11316 | H543901R | NOLI PETE A ET UX | 09/20/10 | $292,074.88 | E |
| 7-11358 | H543901R | DAVID LEE MILLER AND DEBORAH FRANCE | 11/30/10 | $164,961.27 | E |
| 7-11182 | H543901R | LASALVIA ANTHONY & PEGGY | 04/28/11 | $11,643,077.00 | W |
| 7-11538 | H543901R | INLAND KENWORTH INC | 11/26/12 | $6,990,047.53 | W |
| NUMBER OF ACQUISITIONS: | 53 | | ACQUISITION COST TOTAL: | $87,124,284.58 | |



| Code | Issue | Response |
|---|---|---|

| Code | Comment Document |
|---|---|

RIGHT OF WAY GROUP
205 South 17th Avenue Phoenix, Arizona

## PARCEL TRANSMITTAL

Transaction Cutoff Date: Sept. 14, 2010

| Processing Unit | Initial | Date | Processing Unit | Initial | Date |
|---|---|---|---|---|---|
| Consultant Reviewer/ Acquisition Reviewer | VW | 9/13/10 | Operations - Accounting | MR | 9-14-10 |
| Plans - Delineation | LG | 9/13/10 | Operations - Manager | PS | 9/16/10 |
| Titles | Pee | 9/13/10 | Operations - Accounting | DC | 3/9/11 |
| Project Mgt - Project Schedule | TC | 9/13/10 | R/W Record Center | [illegible] | 3-31-11 |

Grantor & Address: ☒ Husband /Wife

Peter A. Noli & Maryann Noli
6130 W. Dobbins, RT 2, Box 955
Laveen, AZ 85339

Project: 202L MA 000 H5439 01R
Highway: SOUTH MOUNTAIN FREEWAY
Section: Jct. I-10W - Jct. I-10S
Parcel: 7-11316
Assessor #: 300-02-021G
☐ Federal Aid Involvement
☐ MAG ☐ PAG ☐ SW ☒ RTP #2468

SETTLEMENT DATA: ☐ Partial ☒ Total

| | |
|---|---|
| Land | $285,000.00 |
| 10.31 Acres, 449,104 Square Feet | |
| Improvements | $N/A |
| 0 Square Feet | |
| Severance Damages | $N/A |
| Cost-to-Cure | $N/A |
| Temporary Entry | $N/A |
| Temporary Construction Easement | $N/A |
| Administrative Settlement | $N/A |
| | |
| Less Salvage | $N/A |
| Sub Total | $285,000.00 |
| Closing Costs | $7,074.88 |
| TOTAL | $292,074.88 |

DESCRIPTION:
W2, SE4, SEC 6, T1S, R2E, GSRBM

Maricopa County, Arizona

APPRAISAL DATA:
☐ Appraisal not required
Appraiser: Baltutat ☐ Staff ☒ Fee
Approved Appraisal Amount: $285,000.00
Appraisal Review Amount: $285,000.00

| INSTRUMENTS IN FILE: | Record | Thru Escrow |
|---|---|---|
| Warranty Deed | ☒ | ☒ |
| | ☐ | ☐ |
| | ☐ | ☐ |
| | ☐ | ☐ |

COMMENTS: Send check to Escrow, Title

Acquisition Code: R301
☐ Acquired by Consultant, Contract #
☐ Escrow Waived
☐ Right of Way Contract
Approved by:
☐ Salvage Sheet Attached
☐ Equal to cost of removal
☐ Offer reduced by salvage amount established
☐ Administrative Settlement
Approved by: on
Amount over approved appraisal $
Excess Land Acquired (If yes, copy to Prop. Mgt.)
Acres, Square Feet
☐ Repurchase Rights Waived
Yes Irrigation Water Right or Well 160195 TD
Certificate or Well # 58 (If yes, copy to Titles)
☐ See additional information attached

WARRANT NEEDED BY: September 20, 2010
AGENT PHONE: 602-712-8918)

CERTIFICATION

I hereby certify that, to the best of my knowledge and belief, all statements contained in this parcel file are a full and complete record of all agreements and considerations between the Negotiator and the Grantor, and that such above agreement was reached without coercion, promises other than those shown in the Right of Way Contract, or threats of any kind whatsoever by or to either party.

Further, I have no direct or indirect, present or contemplated future personal interest in such property, nor will I in any way benefit from the acquisition of such property.

Jacki Valinski, Right of Way Agent
ADOT
Parcel Transmittal 12/07/06

APPROVED 9-16-10
DIRECTOR OF ADOT

PARCEL: 7-11316

| Code | Issue | Response |
|---|---|---|

| Code | Comment Document |
|---|---|

ARIZONA DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY GROUP
205 South 17th Avenue Phoenix, Arizona

## PARCEL TRANSMITTAL

Transaction Cutoff Date: 12/11/07

| Processing Unit | Initial | Date | Processing Unit | Initial | Date |
|---|---|---|---|---|---|
| Consultant Reviewer/ Acquisition Reviewer | MV | 12-10-07 | Operations - Accounting | ML | 12-11-07 |
| Plans - Delineation | CG | 12-10-07 | Operations - Manager | PB | 12/13/07 |
| Titles | Bee | 12/11/07 | Operations - Accounting | ae | 1/8/08 |
| Project Mgt - Project Schedule | MKM | 12.11.07 | R/W Record Center | [illegible] | 1-10-08 |

Grantor & Address: ☒ Husband /Wife

Mr. Fred Martinez, Trustee
Mrs. Helen J. Martinez, Trustee
5717 West Washington
Phoenix, Arizona 85043

Project: 202 MA 000 H543901R
Highway: SOUTH MOUNTAIN (202L)
Section: Jct. I-10S - Jct. I-10W
Parcel: 7-10612
Assessor #: 104-04-512
☐ Federal Aid Involvement
☐ MAG ☐ PAG ☐ SW ☒ RTP #1605

SETTLEMENT DATA: ☐ Partial ☒ Total

| | |
|---|---|
| Land | $1,230,000.00 |
| 3.415 Acres, 148,777 Square Feet | |
| Improvements | $N/A |
| Square Feet | |
| Severance Damages | $N/A |
| Cost-to-Cure | $N/A |
| Temporary Entry | $N/A |
| Temporary Construction Easement | $N/A |
| Administrative Settlement | $75,000.00 |
| Lost Development Cost | 24,591.74 |
| Less Salvage | $N/A |
| Sub Total | $1,329,591.74 |
| Closing Costs | $4,913.00 |
| TOTAL | $1,334,504.74 |

DESCRIPTION:
LOT 1, VAN BUREN STREET/57TH DRIVE

Maricopa County, Arizona

APPRAISAL DATA:
☐ Appraisal not required
Appraiser: Baltutat ☐ Staff ☒ Fee
Approved Appraisal Amount: $1,230,000
Appraisal Review Amount: $1,254,591.74

| INSTRUMENTS IN FILE: | Record | Thru Escrow |
|---|---|---|
| Warranty Deed | ☒ | ☒ |
| | ☐ | ☐ |
| | ☐ | ☐ |
| | ☐ | ☐ |

COMMENTS: Please call agent to pick up check.

Acquisition Code: R301
☐ Acquired by Consultant, Contract #
☐ Escrow Waived
☐ Right of Way Contract
Approved by:
☐ Salvage Sheet Attached
☐ Equal to cost of removal
☐ Offer reduced by salvage amount established
☒ Administrative Settlement
Approved by: Brian Rockwell on 11/28/07
Amount over approved appraisal $75,000
No Excess Land Acquired (If yes, copy to Prop. Mgt.)
Acres, Square Feet
☒ Repurchase Rights Waived
No Irrigation Water Right or Well
Certificate or Well # _____ (If yes, copy to Titles)
☐ See additional information attached

WARRANT NEEDED BY: _____
AGENT PHONE: 602-712-7432

CERTIFICATION

I hereby certify that, to the best of my knowledge and belief, all statements contained in this parcel file are a full and complete record of all agreements and considerations between the Negotiator and the Grantor, and that such above agreement was reached without coercion, promises other than those shown in the Right of Way Contract, or threats of any kind whatsoever by or to either party.

Further, I have no direct or indirect, present or contemplated future personal interest in such property, nor will I in any way benefit from the acquisition of such property.

APPROVED 12-13-07
DIRECTOR OF ADOT

Kerry Nygaard, Right of Way Agent

PARCEL: 7-10612

Parcel Transmittal 12/07/06

| Code | Issue | Response |
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| Code | Comment Document |
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**From:** Howard Shanker
**To:** Projects
**Subject:** Additional Comment on the SMF Loop 202 Freeway DEIS - Filed by PARC et al.
**Date:** Wednesday, July 24, 2013 2:12:06 PM
**Importance:** High

Addendum to the Comments Filed on July 23, 2013 By:

Protecting Arizona Resources and Children, Inc. (PARC); The Foothills Community Association; The Foothills Club West Community Association; The Lakewood Community Association; The Calabrea Community Association; Don't Waste Arizona, Inc. (DWAZ); Gila River Alliance for a Clean Environment (GRACE); Gila River Environmental Youth (GREY); Patricia Lawlis; Timothy Lank; Chad Blostone; Michael Hinz; Chris Boettcher; Phoenix Mountains Preservation Council (PMPC) - (collectively referred to herein as "Commenters").

1 1. As discussed in Commenters' previous submission, the DEIS failed to adequately consider the health impacts resulting from freeway related air pollution. Given the large number of schools, community areas, and homes within approximately one-half mile of the proposed right-of way (the "Hot Zone" for health impacts), ADOT should also have considered, *inter alia*, future health care costs and impacts on human capital in general as indirect and/or cumulative impacts under NEPA. It is likely that thousands of children living and/or going to school in this Hot Zone will suffer from, in part, inhibited lung growth and development, as well as asthma -- as a direct and proximate result of the freeway. The primary health threat from proposed freeway air pollution to adults will be increased risks of chronic cardiovascular illness, acute myocardial infarctions, and premature mortality. Given the certainty of the science at issue, future health care related costs and health related impacts in general should have been considered in the DEIS.

2. Commenters expressly incorporate herein, by this reference, any comment on the DEIS submitted by: The Sierra Club; PIRG/Arizona PIRG; the Gila River Indian Community; and any member of any of the above identified organizations/associations.

Thank you.

Howard M. Shanker
The Shanker Law Firm, PLC
www.ShankerLaw.net

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700 E. Baseline Rd., Bldg. B
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*Indian Law* *Environmental & Natural Resources* *Personal Injury* *Civil Litigation* *Adoption*

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| 1 | **Air Quality, Health Risk Assessment** | The carbon monoxide analysis was updated in the Final Environmental Impact Statement. Although a qualitative analysis of particulate matter ($PM_{10}$) was presented in the Draft Environmental Impact Statement, a quantitative project-level particulate matter ($PM_{10}$) 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. 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.<br>The emission modeling developed for the proposed action showed 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. 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 (see discussion beginning on page 4-77 of the Final Environmental Impact Statement).<br>**The Role of Health Risk Assessment in a National Environmental Policy Act Context**<br>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. |

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| | confidential, or otherwise legally exempt from disclosure. This communication is intended solely for the use of the individual or entity to which it is addressed. If you are not the intended recipient or the person responsible for delivering this communication to the intended recipient, you are prohibited from retaining, using, disseminating, forwarding, printing or copying this communication. If you have received this communication in error, please immediately notify the sender via return e-mail or telephone.<br><br>**IRS CIRCULAR 230 DISCLOSURE:** To ensure compliance with requirements imposed by the IRS, we inform you that, to the extent this communication (or any attachment) addresses any tax matter, it was not written to be (and may not be) relied upon to (i) avoid tax-related penalties under the Internal Revenue Code, or (ii) promote, market or recommend to another party any transaction or matter addressed herein (or in any such attachment). |

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| **1 (cont.)** | | 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:<br><br>*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.*<br><br>*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.*<br><br>*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.*<br><br>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. |

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| 1 (cont.) | | 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).<br><br>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.<br><br>As described 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. |

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| 1 (cont.) | | 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).<br>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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| 1 (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.<br>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. |

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July 16, 2013

Mr. Alan Hansen- Team Leader-PEAR
Federal Highway Administration
4000 N. Central Avenue- Suite 1500
Phoenix, AZ 85012-3500

Dear Mr. Hansen:

RE: South Mountain Freeway Meeting

1 As your schedule permits I would like to meet with you to discuss the proposed South Mountain Freeway Loop 202 and the impacts it will have on my village if it is built on Pecos Road.

My name is Jim Jochim and I am the Treasurer of PARC ( Protecting Arizona Resources and Children ) we are a 501 C 3 and were incorporated in 2006. I have been actively involved in the public freeway meetings for over a decade and I had the privilege of meeting Mr. Bill Vachon at the SMCAT meetings before he retired .

Enclosed are several copies of the Ahwatukee Republic dated June 14, 2013 in which I am pictured on the front page and on page four. I am also enclosing a number of PARC business cards for your distribution.

Please advise what date and time works best for your schedule and I will be there because as a retiree from AT&T I have a lot of 'flex' time.

Best regards,

Jim Jochim
1231 E. Desert Flower Lane
Phoenix, AZ 85048
T# 480-460-2535
Fax# 480460-2898
E-mail: Jochim1@cox.net

Enclosures : AFN paper and PARC business cards

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| 1 | | Comment noted. |

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# Speak up now or accept the inevitable outcome

Five days — that is all the time remaining for public comments on the South Mountain Loop 202 Freeway — then it is over. Finished. The end.

So SPEAK UP now or accept the inevitable outcome — Pecos Road will turn into the South Mountain Loop 202 Freeway.

Jim Jochim

Volumes have been written about the permanent environmental damage that will impact our community if the proposed South Mountain Loop 202 Freeway is constructed on Pecos Road. This column will not restate all of the obvious environmental impacts; but will focus on the daily use of Pecos Road.

First, we can start with eliminating any thought of using Pecos Road for jogging or biking, as that will be strictly prohibited once it is part of the Interstate System.

Currently (as you will see in the accompanying map), we have six ways to access Pecos Road from the Ahwatukee Foothills Village — ranging from 40th Street on the east to 27th Avenue on the west. From my perspective, the traffic flows at a decent pace on Pecos Road and the side streets that feed into the main exit locations are not over-loaded.

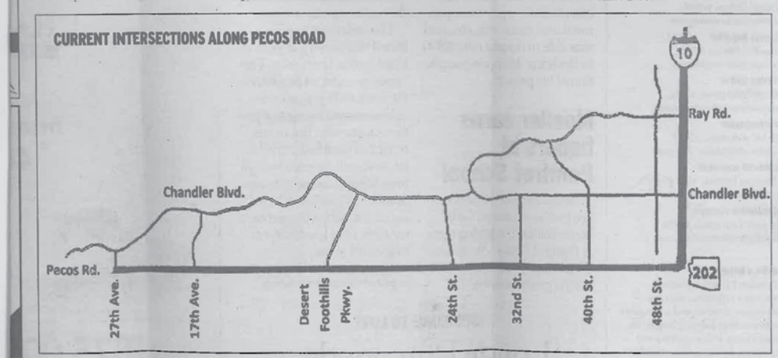
The other accompanying map shows how the exit locations will look if the proposed South Mountain Loop 202 Freeway is completed. As you will quickly notice, we have decreased from six options to four. We have lost the ability to use 32nd Street and 27th Avenue.

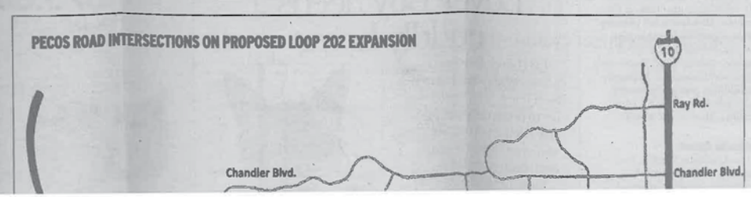
This means the people living in the 700-plus homes in the Calabrea and Foothills Reserve HOAs will need to travel to 17th Avenue via Chandler Boulevard to get onto the South Mountain Loop 202 Freeway. In addition, all of the people who used 32nd Street will need to travel to either 40th Street or 24th Street if they want to gain access to the South Mountain Loop 202 Freeway. This will place a significant burden on Chandler Boulevard and also on interior streets like Liberty Lane and Lakewood Parkway West — especially when Desert Vista High School is in session.

So this is a crucial time to donate money to Protecting Arizona's Resources and Children (PARC), a 501(c)3 organization. We are in the process of filing a substantial opposition document with the Arizona Department of Transportation on the flaws in the Draft Environmental Impact Statement, and your tax deductible contribution will make a big difference. Please send your donation to: PARC, PO Box 50455, Phoenix, AZ 85076.

Thank you, for caring about our environment!

• **Jim Jochim, treasurer of Protecting Arizona's Resources and Children (PARC), has been a resident of Ahwatukee Foothills since 1995.**

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| 1 | **Traffic** | The main line of the E1 Alternative would not have a bicycle route as part of the design. Continuous east–west riding would be possible in the neighborhoods adjoining the alternative and along Chandler Boulevard. Please see Draft Environmental Impact Statement Figure 3-33, on page 3-57. |
| 2 | **Traffic** | The determination to not include an interchange at 32nd Street was made in coordination with the City of Phoenix (see Figure 3-8 on page 3-15 of the Final Environmental Impact Statement). The 32nd Street interchange would have required the displacement of over 100 homes and would have been located in close proximity to an existing high school. The 27th Avenue interchange was evaluated but ultimately eliminated because of increased residential displacements and cost. The extension of Chandler Boulevard west of 19th Avenue is included in this project because reasonable access must be maintained to the neighborhoods at the west end of Pecos Road.<br>In 2006, the City of Phoenix conducted a traffic circulation study to evaluate the impacts of the proposed freeway on the local street system, including the shift of access to Foothills Reserve and Calabrea from Pecos Road to Chandler Boulevard. The City study found no adverse effects on the local street system from the freeway (see Appendix 3-1 in the Final Environmental Impact Statement). The traffic information presented in the Draft Environmental Impact Statement in Figure 3-37 on page 3-61 shows that traffic along Chandler Boulevard between 24th Street and Interstate 10 would decrease with the propose freeway in place. |

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**From:** Projects
**To:** ADOT
**Subject:** FW: SMF DEIS Comment
**Date:** Monday, July 22, 2013 8:35:48 AM

FYI

**From:** Tim Lank [mailto:trlank@hotmail.com]
**Sent:** Friday, July 19, 2013 9:25 PM
**To:** Projects
**Cc:** Tim Lank; Howard Shanker; Pat Lawlis; Jim Jochim; Clsdeer@aol.com; Steve Brittle
**Subject:** SMF DEIS Comment

Attn: ADOT 202 South Mountain Freeway Project Team

This is a comment on the subject SMF DEIS.

1 2 3 I am concerned that the SMF, which has been repeatedly described as a truck bypass, will have an exceptionally high percentage of heavy commercial semi truck traffic on it, with attendent increased noise and air pollution issues, compared to other similar nearby freeways. On any trip out I-10 to the California border, I always observe large numbers of semis, usually running in convoys. While I have no way of knowing for sure, I suspect a high percentage of these trucks are pass-thru long distance overland that have neither originated or stopped in the Phoenix Metro area. I say this because of the number of cargo containers seen; however, I'm sure ADOT / MAG has accurate recent data on commercial cargo for Phoenix on a pass-thru, origination and destination basis, even for intra-regional trucking with origination and destination pairs in the Valley. I was surprised that very little of this specific heavy truck data found its way into the DEIS, with type of traffic vehicles apparently given equal weight, or at least not distinguished between. I would like to see more detailed analysis of the composition of the traffic, with attention to the pass-thru, origination, destination and internal regional components of heavy trucks.

4 I sat through many discussions at the SMCAT meetings where traffic modelling the number of single commuters in passenger cars that would pass through the break point between the east and west sections of the SMF daily was questioned. Since the ultimate goal of the SMF seems to have devolved into regional mobility, I was surprised that this figure of number of daily commuter trips by non-commercial vehicles through the break point between east and west Valley did not

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| 1 | **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 users of the proposed freeway would be automobiles. The Maricopa Association of Governments regional travel model projects that truck traffic will represent approximately 10 percent of the total traffic on the proposed action, similar to what is currently experienced on other regional freeways such as Interstate 10, Loop 101, and U.S. Route 60. Trucking destinations in the Phoenix metropolitan area would still prompt trucks to enter congested areas. Choosing to travel on the proposed freeway versus Interstate 10 would not produce substantial travel time benefits. Therefore, 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. The CANAMEX and Phoenix truck bypass (Interstate 8/State Route 85) routes are not mandatory for truck traffic; they are recommended. The Arizona Department of Transportation does not enforce these routes. It is not anticipated that these routes would be enforced as mandatory in the future. |
| 2 | **Noise** | Noise levels from Pecos Road traffic were measured in 2003 and 2004 and ranged from 44 A-weighted decibels to 56 A-weighted decibels. Without noise mitigation, noise levels from the proposed freeway are predicted to range from 64 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 59 A-weighted decibels to 63 A-weighted decibels for most of the areas (see Draft Environmental Impact Statement page 4-91). Because of topography, local street traffic, or other engineering constraints in a few small areas, estimated noise levels could not be reduced as much and would be as high as 64 A-weighted decibels to 70 A-weighted decibels in those areas. Noise walls would range in height from 8 feet to 20 feet tall in the Ahwatukee Foothills area. 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 Draft Environmental Impact Statement page 4-91 and in the sidebar on page 4-92. The noise analysis was updated for the Final Environmental Impact Statement using most recent Federal Highway Administration and Arizona Department of Transportation policy and traffic projections provided by the Maricopa Association of Governments in August 2013. This updated analysis begins on page 4-88 of the Final Environmental Impact Statement. No substantial differences between the analyses presented in the Draft and the Final Environmental Impact Statements resulted. |

(Responses continue on next page)

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| | appear in the DEIS. I'm sure the data is available, since as a long-term employee of a large local company, I had to fill out questionaires regularly from the County on my commuting habits, including home address and destination.<br><br>Regarding the pass-thru traffic of heavy semi trucks, I have noticed small signs on I-10E near Buckeye and I-10W near Casa Grande indicating that the AZ85 / I-8 route through Gila Bend is an optional bypass around the Phoenix urban core. Having taken this route a few times, I noticed the number of traffic lights and stop signs, low speed limits, speed traps, lack of amenities, narrow lanes with few passing opportunities, scenic small downtown and difficult access to I-8 were a major disincentive for a commercial trucker to consider this alternate. I have been ensured by ADOT that this is all being remedied and AZ 85 will be an interstate caliber road by the time the SMF is completed, thus providing a much more |
| 5 | feasible bypass alternative to the SMF. My question is if ADOT intends replace the current signage with larger, preferably overhead, signs, promoting the AZ85 / I-8 bypass in order to minimize pass-thru truck traffic on the SMF? In addition, |
| 1 | are there any plans to require or regulate the use of the Gila Bend bypass for pass thru traffic? If so, will there be enforcement by DPS, since commercial overland drivers all are required to maintain logs and carry bills of laden indicating origin and destination?<br><br>Thank you for considering these numerous concerns and requests for more information regarding the SMF.<br><br>Regards,<br>Timothy R. Lank<br>Vice President,<br>Protecting Arizona's Resources and Children (PARC) |

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| 3 | **Air Quality** | The carbon monoxide analysis was updated in the Final Environmental Impact Statement. Although a qualitative analysis of particulate matter ($PM_{10}$) was presented in the Draft Environmental Impact Statement, a quantitative project-level particulate matter ($PM_{10}$) 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. 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.<br><br>The emission modeling developed for the proposed action showed 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. 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 (see discussion beginning on page 4-77 of the Final Environmental Impact Statement). |
| 4 | **Traffic** | Information related to the origin and destination, including pass-thru, of vehicles that would use the proposed freeway is presented in Figure 3-18 on page 3-36 of the Draft Environmental Impact Statement. Details related to heavy trucks in the region is presented on page 3-64 of the Draft Environmental Impact Statement. |
| 5 | **Trucks** | There are no current plans to increase the size of the signs for the Phoenix bypass route but the current signs are overhead signs. |

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**From:** Projects
**To:** ADOT
**Subject:** FW: SMF DEIS Comment
**Date:** Monday, July 22, 2013 8:37:08 AM

FYI

**From:** Tim Lank [mailto:trlank@hotmail.com]
**Sent:** Friday, July 19, 2013 11:58 PM
**To:** Projects
**Cc:** Tim Lank; Howard Shanker; Steve Brittle; Jim Jochim; Clsdeer@aol.com; lawlis@aol.com
**Subject:** SMF DEIS Comment

Attn: ADOT 202 South Mountain Freeway Project Team

This is a comment on the subject SMF DEIS.

I have been an East Valley resident for 33 years, and as such, I voted on both the sales tax fund raising propositions to implement the regional transportation plan. Realizing there was a possibilty the SMF could be built, I took confidence in the fact that every effort would be made to minimize the aethetic impact, air and noise pollution and the permanent disruption of neighborhoods by cut-thru traffic, which I experienced directly on a temporary basis when Chandler Blvd was widened and again when the Chandler Blvd bridge over I-10 was rebuilt (the signs prohibiting cut-thru traffic and speed bumps in the neighborhoods are still there). I looked at roads like the US60 Superstition Fwy and the more recent Loop 101 Price Fwy and saw that freeways through dense residential neighborhoods could be designed with both the users and the people adjacent to them in mind. Design features such as roadbeds far below the adjacent arterials, frequent intersections, parallel service / access roads and arterial overpasses all combine to minimize the neighborhood impact. (1)

So I was shocked and enraged when I discovered that the proposed design of the SMF had none of these features on the high density eastern segment. It is the Walmart of Valley freeways going through an area on the outskirts that prides itself on a more natural, desert suburban village environment. It's not bad enough that this freeway will bring in more congestion, higher crime and eliminate the famous "worlds largest cul-de-sac". Its proposed design will negatively impact the local environment in a huge way, with attempts at mitigation that create unsightly huge walls, and raised freeway overpasses that will propagate traffic noise and pollution at a greater distance. Neighborhood cut-thru routes will become access (2) (3)

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| 1 | **Design** | The design of the proposed freeway would be in accordance with the Arizona Department of Transportation Roadway Design Guidelines (see page 3-54 of the Draft Environmental Impact Statement). All freeways and highways in Arizona are developed these guidelines. Each freeway is evaluated based on surrounding site conditions and the design is optimized based on a number of criteria and considerations. There is not a single design that fits every condition. The proposed freeway would include similar opportunities for aesthetic treatments and enhancements as other freeways in the Phoenix metropolitan area. |
| 2 | **General Impacts** | The study used state-of-the-practice, scientific community methods and similarly accepted methods. Methods, assumptions, and data were developed early in the environmental impact statement process and peer reviewed by the Federal Highway Administration, the Arizona Department of Transportation, and other federal, State, and local agencies. Peer reviewers concluded that the methods, assumptions, and data are appropriate. The Draft Environmental Impact Statement has sufficient technical merit, does comply with "fundamental concepts and purpose of an environmental impact statement," and does appropriately and properly inform the public.<br>While the City of Phoenix Police Department reported in 2005 that it did not have any statistics specific to crime adjacent to freeways, the Police Department did note that, based on its experience, there does not appear to be a correlation between crime rates and freeways. See Final Environmental Impact Statement sidebar on page 4-21.<br>The Arizona Department of Transportation and Federal Highway Administration, in cooperation with the U.S. Army Corps of Engineers, the U.S. Bureau of Indian Affairs, and the Western Area Power Administration, prepared the Draft and Final Environmental Impact Statements and Section 4(f) Evaluation in accordance with the National Environmental Policy Act of 1969 [42 United States Code § 4332(2)(c)], Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 United States Code § 303, as amended), and Section 404 of the Clean Water Act of 1977 (33 United States Code § 1251). All of these agencies are experienced in the review of National Environmental Policy Act documents and have found the logical sequence of decision making to be sound and in line with National Environmental Policy Act requirements. The Draft Environmental Impact Statement and Section 4(f) Evaluation 1) satisfies Federal Highway Administration and Arizona Department of Transportation's environmental analysis requirements; 2) provides a comparison of the social, economic, and environmental impacts that may result from implementation of the proposed action—construction and operation of a major transportation facility; and 3) identifies measures to avoid, reduce, or otherwise mitigate adverse impacts. |
| 3 | **Air Quality** | The carbon monoxide analysis was updated in the Final Environmental Impact Statement. Although a qualitative analysis of particulate matter ($PM_{10}$) was presented in the Draft Environmental Impact Statement, a quantitative project-level particulate matter ($PM_{10}$) 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. 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. |

(Response 3 continues on next page)

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| | roads<br>creating traffic on small streets where there was none. Is there some good reason the design of the SMF is so drastically different from its predecessors? Even the most recent adjacent connecting Loop 202 San Tan Fwy has arterial overpasses. |
| 4 | Specifically, the design of the SMF in the eastern segment is deficient in that at is an above grade freeway with raised freeway overpasses over arterials, necessitating very high, unsightly noise walls and propagating pollution over an area loaded with nearby schools. This aspect of the design is largely unknown by the general public, who are expecting a design similar to what they see locally. |
| 5 | The SMF in the eastern segment is replacing Pecos Rd, which will be completely removed. However, access to the SMF in the form of interchanges will only have four versus the current six. The elimination of 32St and 27Ave access will wreak havoc with local traffic patterns on arterials, collectors and neighborhood streets. It has been stated that the 32St removal was at the request of the City of Phoenix because of concern over the four schools in the immediate area. This is a patently absurd argument. The removal of access to 32St will only cause worse traffic congestion and more dangerous conditions for local schoolchildren. This decision needs to be revisited with the appropriate Phoenix representative so he can reair his concerns and hear the ramifications of his irresponsible request. |
| 6 | The elimination of 27Ave access will divert traffic to the 17Ave interchange. Between 17 and 27 Ave is the largest piece of undeveloped land in Ahwatukee. When this area is developed at usual density, the traffic at the 17Ave interchange will increase tremendously, and the development will provide cut-thru traffic routes for vehicles currently using 27Ave. The elimination of an access point to the SMF at 27 Ave is a design deficiency that should be remedied. In addition, since the land between these two access points is undeveloped, an access road would be a helpful amenity. |
| 7 | A major safety issue with an above grade freeway is the proximity of approximately 12 miles of SRP 500KV high-tension power lines parallel and immediately adjacent to the roadway. With the expected high percentage of semi trucks on this route, and especially hazmat tankers carrying gasoline from the tank farm at the western end, an accident that involved one of these power poles could cause a cascade failure of the entire 12 mile stretch between dead end towers and cause an extended and expensive outage of weeks since this line carries most of the power to the East Valley. Furthermore, this is a major line from Palo Verde NGS and a sudden dropout could have severe repercussions for this facility. A below grade freeway would greatly reduce the chances of such an accident. |
| 8 | The traffic model data by HDR at the SMCAT meetings revealed some doubt about the need for commuter regional mobility between the Southeast Valley and |

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| 3 (cont.) | | The emission modeling developed for the proposed action showed 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. 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 (see discussion beginning on page 4-77 of the Final Environmental Impact Statement). |
| 4 | **Design** | Depressing the proposed Pecos Road sections would entail installation of pump stations to drain the main line freeway. A depressed freeway would also need a drainage channel to capture the off-site flows to prevent their entering the freeway. Pump stations were not used because of the high cost of construction and maintenance needed for their operation. The recommended freeway configuration would have the E1 Alternative aboveground and the existing culverts extending to pass the drainage under the freeway. Pecos Road currently has numerous existing culvert crossings. Depressing the freeway in this area would eliminate the existing culvert crossings and potentially have adverse flooding impacts on adjacent properties. Extending the existing culverts or upsizing the culverts would maintain or improve drainage flows. This would ensure that there would be no adverse flooding impacts on adjacent properties. (See Draft Environmental Impact Statement pages 3-15 and 3-18.)<br>To reduce impacts by depressing the proposed freeway in the Eastern Section, the Arizona Department of Transportation would:<br>• need to spend an additional $400 million for right-of-way acquisition and construction<br>• displace an additional 300 residences<br>• maintain additional pump stations and detention basins for the life of the freeway<br>• would still have noise-related impacts requiring mitigation (i.e., noise barriers and their associated costs and visual impacts)<br>Because the belowground option would result in substantially greater costs and residential displacements, this option was eliminated from further study.<br>A depressed freeway option was evaluated in the Draft Environmental Impact Statement and is described on pages 3-15 and 4-91. Although depressing the freeway would reduce noise levels, noise walls would still be needed to further reduce noise to meet the Arizona Department of Transportation noise policy. Whether the freeway is built aboveground with tall walls or belowground with shorter walls, the final mitigated noise levels would be nearly the same at nearby residences. The major disadvantage of building a depressed freeway would be the increased construction cost and the possible acquisition of additional right-of-way for pump stations and retention basins.<br>For most alignments of each of the action alternatives, the proposed freeway would be elevated above the natural grade of the surrounding land. This elevated profile would allow noise to carry farther, creating noise impacts at greater distances from the freeway. Depressing the profile of the freeway below grade might reduce traffic noise levels adjacent to depressed sections. However, it would be necessary to also construct at-grade noise barriers to achieve noise reduction goals at receiver locations adjacent to depressed freeway sections (see page 4-91 in the Draft Environmental Impact Statement). This strategy would reduce visual impacts |

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| | the Southwest Valley, especially eight lanes. What was not in doubt however, was the need for improved vehicle transportation between the Village of Laveen and the I-10 Papago Fwy. Throughout the process, many residents of Laveen commented that they didn't need the Ahwatukee segment, they just needed a better route to I-10 Papago. Many felt that future development in their area was being held hostage to a road half of which they didn't need or want. With this in mind, a spur freeway, improved arterials and / or an Arizona Parkway might be a better solution for the people of Laveen. The DEIS did not specifically cite commuter only traffic projections through the break point between the east and west segments of the SMF. This is an important piece of data. |
| 9 | |
| | Lastly, this SMF freeway is projected to cost out at $2 - 3 billion. This money could more effectively be used improving the existing city core transportation infrastructure, such as widening the Broadway Curve and I-10 Papago Fwy, putting a second level on the Black Canyon Fwy, expanding critical arterials like Baseline Road or technology projects like improving traffic light coordination on arterials all around the Valley for increased flow. However, if the current proposed abominable design for the SMF eastern segment is based on decreased sales tax revenues due to the slow economy, I would like to suggest waiting until the funds are available to built it right. |
| 10 | |
| | Thank you for considering these numerous concerns and requests for more information regarding the SMF. |
| | Regards,<br>Timothy R. Lank<br>Vice President,<br>Protecting Arizona's Resources and Children (PARC) |
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| 4 (cont.) | | associated with high noise barriers on elevated freeways, but would entail ground-level noise barriers and their associated interference with views. Thus, with either approach to noise reduction, views of nearby mountains could be disrupted. The specific impacts would depend on the geometrics of the height of any noise barriers constructed, the intervening topography, and the distance of the barriers from the residences in question. |
| 5 | **Alternatives** | The determination to not include an interchange at 32nd Street was made in coordination with the City of Phoenix (see Figure 3-8 on page 3-15 of the Draft Environmental Impact Statement). The interchange would have required the displacement of over 100 homes and would have been located near an existing high school. The City recommended that, based on these impacts, the interchange be removed from the study. In 2006, the City of Phoenix conducted a traffic circulation study to evaluate the impacts of the proposed freeway on the local street system, including the shift of access to Foothills Reserve and Calabrea from Pecos Road to Chandler Boulevard. The City study found no adverse effects on the local street system from the freeway (see Appendix 3-1 in the Final Environmental Impact Statement). |
| 6 | **Traffic** | The determination to not include an interchange at 32nd Street was made in coordination with the City of Phoenix (see Figure 3-8 on page 3-15 of the Draft Environmental Impact Statement). The interchange was evaluated but ultimately eliminated because of increased residential displacements and cost. There are no provisions for frontage roads connecting 17th Avenue to the residential area to the west. Reasonable access is provided from 17th Avenue and the extension of Chandler Boulevard. The daily traffic volume on 17th Street in 2011 was approximately 4,500 vehicles per day just north of Pecos Road (see <http://phoenix.gov/streets/traffic/volumemap>). With the proposed freeway in place, an additional 4,000 vehicles day would use 17th Avenue to gain access to residences west of 17th Avenue. The total daily traffic would be well below the capacity of a two-lane road (approximately 15,000 vehicles per day). |
| 7 | **Design** | The clearance distance between the freeway and power lines would be in excess of any regulatory safety requirements for the power lines. There are power lines throughout the region that cross over sections of freeway. The Arizona Department of Transportation and the utility companies work together to ensure the safety of the traveling public as well as ensure reliability of power sources. |

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| 8 | **Purpose and Need** | The Federal Highway Administration and the U.S. Environmental Protection Agency approved the air quality conformity determination that includes the Maricopa Association of Governments regional travel demand model that produced the traffic projections used in the traffic analysis for the project (see Final Environmental Impact Statement page 3-27). The model projects demand for multiple modes of travel, including automobile, bus, and light rail. Key model inputs used to forecast travel demand in the Study Area included socioeconomic data (based on land use plans and population and economic forecasts), the anticipated average number of vehicle trips within the region on a daily basis, the distribution of transportation modes used by travelers in the region, the capacity of the transportation infrastructure to accommodate regional travel, and the future transportation infrastructure. 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 a lower anticipated population 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. |
| 9 | **Design** | Information related to origins and destinations of motorists that would use the proposed freeway is presented in Figure 3-18 on page 3-36 of the Final Environmental Impact Statement. The definition of freeway users considers only those motorists who travel through the South Mountains; so, motorists who begin their trips in Ahwatukee Foothills Village and travel east to Interstate 10 (Maricopa Freeway) or motorists who begin in Laveen Village and travel north to Interstate 10 (Papago Freeway) are not counted in the analysis. The analysis of origins and destinations shows that 75 percent of travelers would be involved in trips beginning or ending in the Study Area or areas immediately surrounding it. Nine percent of the trips would begin, end, or begin and end outside of the Maricopa Association of Governments region; seven percent would either begin or end in Pinal County. |
| 10 | **Purpose and Need** | The proposed freeway was identified in the 2004 *Regional Transportation Plan* as one of a host of transportation improvements to meet the projected demand for transportation in the Phoenix metropolitan area. Many suggestions such as those made in the comment are being implemented, have been evaluated, or are being considered to address transportation needs in the Phoenix metropolitan area. |

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**From:** Projects
**To:** ADOT
**Subject:** FW: SMF DEIS Comment
**Date:** Monday, July 22, 2013 11:32:16 AM

FYI

**From:** Tim Lank [mailto:trlank@hotmail.com]
**Sent:** Monday, July 22, 2013 11:17 AM
**To:** Projects
**Cc:** Pat Lawlis; Jim Jochim; Clsdeer@aol.com; Steve Brittle; Howard Shanker; Tim Lank
**Subject:** SMF DEIS Comment

Attn: ADOT 202 South Mountain Freeway Project Team

This is a comment on the subject SMF DEIS.

I have been an East Valley resident for 33 years, and as such, I voted for the 20 year Proposition 300 sales tax increase to raise funds for the regional transportation plan in 1985. That was supposed to be the complete regional transportation plan, not the miniscule 20% of total miles that ultimately were completed before expiration. I know ADOT likes to point to a weak economy and reduced funds as the reason for the poor performance on this huge and expensive project. Sadly, I have read in numerous articles that a more accurate reason was misuse of funds, poor supervision and poor project management / control. Add to that private citizens making fortunes by swapping land in the right-of-way in order to drive up their selling price. You may recall that in 1985, one could drive from Jacksonville, FL to Los Angeles, CA non-stop on Interstate 10, except that only in Phoenix, one had to exit at the Durango Curve and drive out Lower Buckeye all the way to Dysart Road before I-10 started again. While this was the butt of many jokes, I came to realize that this is a perfectly normal state of affairs for Arizona transportation. I am regularly reminded of it when I drive past the failed iconic horse racing track on the far west Papago. Failed because of poor access from an incomplete I-10. As a commercial delivery driver in the New York City tri-state area previously, it is hard to comprehend the lack of responsiveness to basic transportation needs.

1 Now we are engaged in a fiasco of the opposite sort. There is extensive discussion of a freeway that is basically not needed and an almost unbelievably exorbitant waste of taxpayer dollars. The general public have been starved for decent roads and freeways for many years. They are weary of sitting in traffic jams at rush

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| 1 | **Purpose and Need** | At the beginning of the environmental impact statement process, the need for a major transportation facility was reexamined to determine whether such a facility is still needed. Validation of those findings occurred throughout the entire environmental impact statement process. Analysis of the purpose and need for the proposed action followed National Environmental Policy Act and Federal Highway Administration implementing guidance on the subject matter and used state-of-the-practice analytical tools, as pointed out in Table 1-3, "Traffic Analysis Tools," on page 1-13 of the Final Environmental Impact Statement. The results of the analysis determined that a transportation problem does exist and that problem will continue in the foreseeable future (see section, *Conclusions*, on page 1-21). As noted on page 3-1 in the section, *Reconfirm the Purpose and Need for the Proposed Action*, a continuous validation process was undertaken throughout the environmental impact statement process to ensure past conclusions in the environmental impact statement process remained valid.<br>The reader is referred to Final Environmental Impact Statement Chapter 3, *Alternatives*, and, specifically, the section, *Alternatives Development and Screening Process Conclusions*, beginning on page 3-26, noting "... a comprehensive set of alternatives including all modes was considered ... assurance that the screening process was an open process ... a logical, sequential, step-by-step process using data and expertise from multiple disciplines ..." to demonstrate all possibilities were considered. |

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| 2 | hour. They jump at any chance for any additional roads on the pretext that the new roads might reduce their aggravation and time sitting still in their cars. Well, this South Mountain Freeway is far from the answer to their complaints. But ADOT / MAG have been playing to this need with a false picture of relief based on old data and faulty models. If this involved anything other than a government agency, it would be called a grift. And their basic rationale is that it was put there 35 years ago. It completes a loop. And it's nice and symmetrical looking on a map, just like other large cities.<br><br>If the SMF was completed even 25 years ago, there would have been little impact and little objection from the neighbors, since there were few people in the area at the time. In fact, our neighbors to the south, the Gila River Indian Community made several overtures expressing an interest in putting this road on their land, only to be spurned by government agencies that obviously had preplanned ideas of what this road needed to look like and where it needed to be. It is telling that of all the highways on the regional plan, the SMF was at the bottom of the list. That and the fact that this DEIS is straining so hard to try and justify it now indicate how ineffective it will be. Think what $2.5 billion dollars would do if directly applied to the Broadway Curve, Papago Freeway, Baseline Road or an Arizona Parkway from Laveen to the Papago, for people who are being held hostage to the SMF under threat of denied development, when all they really want is their half of it. Better traffic controls, like timed coordinated traffic lights on major arterials, or a decent bus system that didn't cater to just downtown workers would a better allocation of transportation resources.<br><br>Unresponsiveness to the needs of its citizen customers seems to be systemic at ADOT, the largest government agency in the state. Yet its single minded focus on ramming the misguided SMF through seems to be a dichotomy. It helps to look at some of their recent history for a better understanding of this iconoclast bureacracy.<br><br>For practically the entire 1990's, the westbound US 60 left lane merge onto the I-10E was the most hazardous location in the Valley for rear end collisions. In late afternoon, traffic backed up and stopped in the 65mph high-speed lane regularly caused major property damage and injury. An acquantance alerted me to this when her boss, the owner of a large aerospace company, became concerned for his employee's safety and asked her to request information from ADOT on the frequency of collision occurance. After much prodding and expressing fear for his job after looking at the results, an ADOT employee generated the report. The business owner wrote to ADOT asking what was planned to remedy the situation. |

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| 2 | **Alternatives** | 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 Final Environmental Impact Statement page 2-1). The Arizona Department of Transportation and Federal Highway Administration 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 Gila River Indian Community land were attempted (see Final Environmental Impact Statement Chapter 2, *Gila River Indian Community Coordination*), the Gila River Indian Community has long held a position of not allowing the proposed freeway to be located on its land. For example, a coordinated referendum of Gila River Indian Community members to favor or oppose construction of the proposed freeway on Gila River Indian Community land or to support a no-build option occurred in February 2012, and Gila River Indian Community members voted in favor of the no-build option. Moving forward, therefore, the proposed action cannot be located on the Gila River Indian Community (see Final Environmental Impact Statement page 3-25). The Gila River Indian Community's position regarding a "no-build" option was considered in the Draft and Final Environmental Impact Statement. That position is formally known as the No-Action Alternative and was evaluated in depth in assessments of the impacts of the proposed action on each resource. Whether alignments to develop on Gila River Indian Community land are ultimately identified or not, the Federal Highway Administration, Arizona Department of Transportation, and Maricopa Association of Governments will continue to coordinate with the Gila River Indian Community regarding concerns and potential mitigation for those concerns. |

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| | This local business leader got a very unsatisfying, if not lame response. I wrote to ADOT as well, suggesting flashing signs on the median wall warning of stopped traffic ahead, which I had seen on merging California interstate highways. I was told this was just not done here. This situation went on for over ten years with millions of dollars in damage and numerous injuries before a separate lane was created that fixed the problem. Ironically, all it took was some paint to stripe the new lane, but this hazardous situation had to wait years until a new carpool flyover was built. This is what passes for responsiveness, competence and accountability.<br><br>A similar situation happened when the 101 Pima Freeway was opened. Initially, it was only four lanes with a dirt median and a two wire divider. A deadly crash occurred when a car went through the divider into oncoming traffic. This time, a direct order from the governor accelerated the necessary safety improvements. Another characteristic displayed here and on the SanTan 202 is the building of freeways in parts, a lane at a time, so to speak. The addition of another lane in each direction, then the addition of car pool HOV lanes seems designed to spread the pain out as long as possible. As an engineer and project manager, the efficiency and cost effectiveness of this process is questionable. One could also ask why the plans for the SMF call for it to have all eight lanes completed at once? What changed? Why were the previous roads built piecemeal? |
| 3 | |
| | There are numerous other misfires I'm sure ADOT would just as soon forget about. The AZ51, originally designated the Piestewa (Squaw Peak) Parkway was actually partially built with signalized intersections at Thomas Road before the public realized what they were (not) getting and the outcry forced the immediate conversion to the present freeway. So much for the efficient propagation of highway information, much like the proposed design of the SMF, with its raised overpasses and unsightly huge sound walls.<br>How much did the Paradise Parkway planning cost before it was quashed by Gov. Fife Symington? This road was also on the 1985 regional plan, had purpose and need, yet was quickly dropped for political reasons.<br>SR 153 at Sky Harbor Airport was also on the regional plan. A huge expanse of elevated concrete, it was quietly decommissioned and the signs removed after an aborted attempt to transfer responsibility for completion to the City of Phoenix. Literally, a highway to nowhere.<br>A question on the acquisition of ROW for the SMF. I understand there were very few takings for the 202 SanTan Fwy in Chandler and Gilbert. Yet hundreds of properties are required for the SMF. Why is there such a large difference? |
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| 3 | **Design** | The determination to build all eight lanes at once was based on a desire to minimize disruption to the traveling public. The other benefit is that there are existing high-occupancy vehicle lanes at each end of the proposed freeway (along State Route 202L [Santan Freeway] and Interstate 10 [Papago Freeway] that can be connected to provide additional services for commuters and regional bus transit). The region's freeways have been implemented in phases based on available funds and traffic demand. |
| 4 | **Acquisitions and Relocations** | The number of acquisitions when dealing with a major transportation project such as the proposed freeway is dependent on a number of factors—roadway location, density of development. The Santan Freeway (State Route 202L) was completed in 2006. At that time, the areas of Chandler and Gilbert were not as developed as the Ahwatukee Foothills Village area is today. Also the cities were more successful in preserving the right-of-way by limiting development within the proposed alignments. Conversely, many residences and businesses were acquired in the construction of the Red Mountain Freeway through the city of Mesa. In making decisions about these freeways, the Arizona Department of Transportation, with concurrence from the Federal Highway Administration, attempted to balance agency responsibilities to address regional mobility needs while being fiscally responsible and sensitive to local communities and environmental conditions. The identification of the W59/E1 Alternative as the Preferred Alternative (which includes the W59 Alternative in the Western Section of the Study Area) seeks to do the same. |

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| | Not all ADOT's misdeeds are so earthshatteringly expensive. Many just require some paint and management direction to fix. I find them interesting because they shed light on the competency of this giant bureaucracy. A running joke almost everywhere in the Valley is the fact that all the new freeways are either called 101 or 202. If I say I'm on the 101, I could be in Glendale or Chandler, miles apart. Rather than continue with the more memorable different names for each segment, or even using different numbers, ADOT has given up on the names. Even the venerable Superstition Freeway has few signs left anymore. We may be calling this highway the South Mountain Freeway, but the chances are good it will just be another 202. This makes it very complicated and confusing to give directions or navigate.<br><br>For years, there were daily jams and congestion where the 101 crosses over the Superstition Fwy. The overpass bridge was built wide enough, but the roadway constricted down to just two lanes in each direction, causing massive backups. Apparently, the Governor or some Legislator made a phone call, and someone appeared with a can of paint, added two more lanes and the backups disappeared. This begs the question whether ADOT goes back and audits its projects after completion to compare planned results with reality. The same situation currently exists on I-10E around MP165 where the freeway narrows to two lanes a few hundred meters before the off ramp for Queen Creek Rd. This is the main exit for the entire town of Maricopa and evening traffic regularly backs up to Chandler Blvd on I-10 because of it. The pavement is wide enough to add another lane, so another can of paint would fix this problem also. So much for ADOT concern for travel time and miles of congested highways. With the huge number of employees, does this organization even look for easy and cost effective improvements, or do they all take the bus and light rail?<br><br>In a similar vein, I was at an ADOT local public meeting and asked why the I-10 couldn't be easily widened by one lane in each direction between Chandler Blvd and Elliott by using the extended merge/ exit lanes. Only a few yards of new additional pavement under each overpass would be required to complete the lane. Once again, the response was that's just not done here, and besides, it would defeat the purpose of the extended merge lanes. I pointed out that similar short on-ramps were in use on the I-17 downtown, but it was wasted breath. It made me wonder about the actual priority given to commuter travel time and receptiveness to public comments. This in a town where two major arterials have had clocked reversible lanes for years and the Valley is loaded with "suicide" center turn lanes. For comparison, in Honolulu, which has similar congestion problems, major urban core highways use the paved shoulders during peak traffic periods for several hours each day. Their priorities are definitely directed at their "customers" rather than |

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their department or jobs.

Lastly, I decided to look at the internal workings and politics of this huge ADOT bureaucracy. This was inspired by an ADOT project engineer during one of the widenings of the Superstition Fwy in Tempe. Apparently, neighbors of the freeway had successfully fought ADOT to a negotiated peace where everyone agreed not to widen the freeway to its full ROW capacity due to noise and pollution concerns. The engineer's comment was in effect- these people won't be here forever and it will get widened to the limit soon enough. He was right. So much for concern for public health of the new neighbors.
On the subject of subcontractor and project management, there were two investigative articles by Sarah Fenske of the Phoenix New Times newspaper in 2006 describing a sucessful lawsuit against ADOT by Tempe engineer Paul Braunstein, an ADOT subcontractor. The articles are quite revealing in a not very flattering way, describing cronyism and nepotism in the department in letting contracts, and organizational gyrations designed to offload accountability onto subcontractors. These articles are on the Internet at:
http://www.phoenixnewtimes.com/2006-06-01/news/friends-at-work/
http://www.phoenixnewtimes.com/2006-06-22/news/roadkill/

Although these articles are dated, there is no clear evidence that ADOT has changed. In fact, the $20 million that ADOT paid HDR Engineering for this grossly deficient SMF DEIS, strongly suggest that things remain exactly the same. In light of all these anecdotes, I question the competency and motives of a department so keen on pushing a questionable $100 million per mile road. This is especially true when the funds could be used so much more effectively practically anywhere else.

Thank you for considering these numerous concerns and requests for more information regarding the SMF.

Regards,
Timothy R. Lank
Vice President,
Protecting Arizona Resources and Children (PARC)

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**From:** Projects
**To:** ADOT
**Subject:** FW: Save Our Mountains Foundation
**Date:** Wednesday, May 22, 2013 10:56:29 AM
**Attachments:** SOMF Sth Mt Freeway, 5.20.2013.doc

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**From:** Susanne Rothwell [mailto:sgr@cox.net]
**Sent:** Monday, May 20, 2013 9:02 PM
**To:** Projects
**Subject:** Save Our Mountains Foundation

Dear Sir, Madam,

Please find attached a letter from Save Our Mountains Foundation (SOMF), regarding the location of the South Mountain Freeway, and the alignment across the SMPP in particular. Many thanks for your consideration in the final location of this freeway.

Sincerely,

*Susanne Rothwell,*
SOMF
(602) 493-1302
susanne@rothwellarch.com

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**SAVE OUR MOUNTAINS FOUNDATION (SOMF):**
Official position on the Arizona Department of Transportation's South Mountain Freeway Environmental Impact Study: May 20, 2013

**SOMF is against the alignment of the South Mountain Freeway and the 202 road that cuts into South Mountain and trespasses into the South Mountain Park/Preserve (SMPP). SOMF is not against the building of the freeway, we are against the encroachment of the freeway into the Preserve and the destruction of the south west ridges of South Mountain.**

1 **SOMF anticipate successful negotiations with the Native American Communities to save the scared South Mountain.**

- 2 South Mountain is the heart of the Phoenix Preserve system. At 16,600 acres it is the country's largest park, later designated "Preserve" by Mayor Goddard, giving it higher protection. It is sacred to the Native American Communities, and is of significant life style value to the residents of Phoenix with over 3 million visitors each year.
- 3 The growth projections both for population and pollution shown in the DEIS are out of date and no longer valid.
- 4 The DEIS shows many alternate routes, but no alternative routes that would save cutting into the south west ridges of South Mountain.
- 5 The citizens of Phoenix have consistently voted 80% in favour of the Preserves, but ADOT feel able to ignore their vote, under the provision that a similar design was on the books prior to 1990. It is not in fact the same design, and PMPC believes that the 'taking' of 31.5 acres of Preserve land represents a clear conflict of the wishes of 80% of Phoenix voters.
- 6 SMPP is on the City of Phoenix "Historic Property Register", and is eligible for protection under the NRHP (National Register of Historic Places). The DEIS says that the CCC buildings will not be destroyed, negating this requirement. However the Sonoran Desert features that make the Preserve unique will be damaged. Cuts of 220' (the height of a 20 storey building) is massive, and the natural experience will be gravely diminished.
- 7 Section 6f of the 'U.S. department of Transportation Act' paragraph 1 says "NPS **must** ensure replacement of lands of equal value, location, and usefulness are provided as conditions of approval for land conversions". It is NOT possible to replace pristine south west ridges of South Mountain, and 31.5 acres of Preserve. This provision can **not** be met.
- 8 Ch 5-18 of the DEIS states that "measures to minimize harm to the South Mountain resources determined through direct co-ordination with resource owners, stake holders and users..." SOMF as a stake holder has NOT be contacted by ADOT, and in fact there is no way to "minimize harm" when you are making 220' cuts through 3 ridges of the South Mountain. There is no way that any land can compensate for the loss of 31.5 acres and the massive destruction to adjacent land.
- 9 Ch 4-1 of the DEIS lists "measurable benefits" of the Freeway Loop. It is notable that the negative impact has NOT been considered.

10 SOMF would like to list the "Measurable detriments" of cutting 220' into SMPP with 8 lanes of traffic:

1. Destruction of the south west ridges of a **sacred mountain** and important tourist destination for over 3 million visitors annually.
2. A massive increase of traffic, pollution, noise and congestion within the Preserve boundary.

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| 1 | **Alternatives** | 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 Final Environmental Impact Statement page 2-1). The Arizona Department of Transportation and Federal Highway Administration 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 Gila River Indian Community land were attempted (see Final Environmental Impact Statement Chapter 2, *Gila River Indian Community Coordination*), the Gila River Indian Community has long held a position of not allowing the proposed freeway to be located on its land. For example, a coordinated referendum of Gila River Indian Community members to favor or oppose construction of the proposed freeway on Gila River Indian Community land or to support a no-build option occurred in February 2012, and Gila River Indian Community members voted in favor of the no-build option. Moving forward, therefore, the proposed action cannot be located on the Gila River Indian Community (see Final Environmental Impact Statement page 3-25). The Gila River Indian Community's position regarding a "no-build" option was considered in the Draft and Final Environmental Impact Statement. That position is formally known as the No-Action Alternative and was evaluated in depth in assessments of the impacts of the proposed action on each resource. Whether alignments to develop on Gila River Indian Community land are ultimately identified or not, the Federal Highway Administration, Arizona Department of Transportation, and Maricopa Association of Governments will continue to coordinate with the Gila River Indian Community regarding concerns and potential mitigation for those concerns. |
| 2 | **Cultural Resources** | If feasible, avoidance of Section 4(f) resources 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, like the South Mountains Traditional Cultural Property and Park/Preserve. 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 Appendix 1-1 of the Final Environmental Impact Statement.) |

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| 11 | 3. The inevitable death of wildlife, and destruction of wildlife corridors that make the Preserve unique. |
| 12 | 4. South Mountain with a Freeway chopped into a corner of it, will NOT encourage companies to relocate to Phoenix, for its great life style and weather. This will be a negative to economic growth. |
| 13 | 5. The Maricopa and Sun Circle Trails as a part of a larger County wide trail system, along with site specific trails will be negatively impacted by the freeway. "Having a regional trail system can be a stimulus to economic growth", as "Low impact Heritage Tourism", but not with a freeway cut through. |
| 14 | • DEIS "The commitment of resources necessary ($2-3billion) to build and operate....based on the concept that residents ....would benefit from the proposed transportation facility" SOMF proposes that spending $2-3 billion to desecrate a major tourist and recreation attraction at the heart of the Preserve system would NOT be of any benefit to the residents of Phoenix. |
| | Save Our Mountains Foundation is a Phoenix based non profit formed in 1973 by concerned citizens. SOMF is dedicated to facilitating the improvement of the mountain and desert preserves in Phoenix. |
| | **We anticipate successful negotiations with the Native American Communities to save the sacred South Mountain.** |

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| 2 (cont.) | | City of Phoenix planning efforts since the mid-1980s illustrate an awareness of the potential for the proposed 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 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). |
| 3 | **Traffic** | 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.<br>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. The purpose and need and analysis of alternatives were updated and reevaluated using these new socioeconomic projections and corresponding projections related to regional traffic. While new projections based on the 2010 Census showed a lower anticipated population and vehicle miles traveled in 2035 than the previous projections, the conclusions reached in the Draft Environmental Impact Statement were validated in the Final Environmental Impact Statement (see Chapter 3, *Alternatives*). The traffic analysis demonstrated that the proposed project is needed today and will continue to be needed into the future.<br>If the proposed action is the Selected Alternative in the record of decision, planning for emergency situations would be initiated. |
| 4 | **Alternatives** | Several action alternatives were subject to the alternatives development and screening process; not just the E1 Alternative and alternatives located on the Gila River Indian Community (Figure 3-6 on page 3-10 of the Final Environmental Impact Statement illustrates a representation of such alternatives). Ultimately the other alternatives were eliminated from further study in the screening process and the Gila River Indian Community decided not to give permission to study alternatives on its land (see Final Environmental Impact Statement page 3-25). Therefore, the Arizona Department of Transportation, with concurrence from 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. |
| 5 | **Section 4(f) and Section 6(f)** | A discussion of the Phoenix Mountain Preserve Act and the proposed freeway is provided on page 5-14 of the Draft Environmental Impact Statement. The total area of impact to the South Mountain Park/Preserve has been reduced from what was proposed in 1988 (see Figure 5-14 on page 5-23 of the Draft Environmental Impact Statement). |

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| 6 | **Section 4(f) and Section 6(f)** | 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. Sometimes there is no way for a needed project to proceed without harming Section 4(f) properties (such as the South Mountain Park/Preserve). As described in the Draft Environmental Impact Statement in Chapters 2, 3, and 5, the examination of possible avoidance alternatives was robust and arduous. The Draft Environmental Impact Statement acknowledges that the cuts through the South Mountains would be a substantial impact, but the activities that make the park such a highly valued tourist attraction(recreational activities, interaction with the Sonoran Desert) would remain.<br><br>If feasible, avoidance of Section 4(f) resources 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 Draft Environmental Impact Statement, numerous alignment adjustments were made to avoid use of existing and planned Section 4(f) resources; 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 Appendix 1-1 of the Final Environmental Impact Statement.) |
| 7 | **Section 4(f) and Section 6(f)** | Section 6(f) of the Land and Water Conservation Fund Act pertains to projects that would impact outdoor recreational property acquired with Land and Water Conservation Fund Act funds. All Section 6(f) protected areas would be avoided and therefore, this requirement would not apply. Other aspects of the South Mountains are afforded protection under Section 4(f) (see page 5-1 of the Final Environmental Impact Statement). |
| 8 | **Section 4(f) and Section 6(f)** | It is acknowledged that the Save Our Mountains Foundation was not one of the groups that has historically been solicited for feedback on potential measures to minimize harm. Every reasonable attempt is made to ensure all stakeholders are engaged; Chapter 6 details the comprehensive public and agency outreach undertaken for a project that had more news articles than most other stories in Arizona since 2001 to ensure all stakeholders would be engaged. The Draft Environmental Impact Statement comment period serves as an opportunity for all stakeholders to provide input on potential measures. |

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| 9 | **Impacts** | Impacts of the proposed freeway are disclosed throughout the Draft Environmental Impact Statement. The *Environmental Consequences* sections in Chapter 4 describe the impacts of each action alternative studied in detail with respect to each environmental elements. In the *Summary* chapter, Table S-3 beginning on page S-10 of the Draft Environmental Impact Statement provides a tabular list of all of the impacts associated with the proposed freeway. |
| 10 | **Section 4(f) and Section 6(f)** | If feasible, avoidance of Section 4(f) resources 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, like the South Mountains Traditional Cultural Property and Park/Preserve. The activities that make the park such a highly valued tourist attraction (recreational activities, interaction with the Sonoran Desert) would remain. 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 Appendix 1-1 of the Final Environmental Impact Statement.)<br>City of Phoenix planning efforts since the mid-1980s illustrate an awareness of the potential for the proposed 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 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). |

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| 11 | **Biological Resources** | The section, *General Impacts on Vegetation, Wildlife, and Wildlife Habitat*, beginning on page 4-125 of the Draft Environmental Impact Statement, discloses by what means the proposed action and its alternatives would affect vegetation, wildlife, and wildlife habitat. A Biological Evaluation was submitted to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and Gila River Indian Community Department of Environmental Quality that addressed threatened, endangered, and candidate species,. 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 (Gopherus agassizii, draft unpublished abstract compiled and edited by the Heritage Data Management System, Phoenix). Current information 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).<br>Connectivity is planned to allow wildlife movement beneath the freeway in multiuse crossings (see page 4-125 of the Draft 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 as well as 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 *Mitigation*, beginning on page 4-138 of the Final Environmental Impact Statement). |
| 12 | **Economic Impacts** | Comment noted. |
| 13 | **Section 4(f) and Section 6(f)** | The Maricopa County trails that would cross the freeway are noted in Figure 5-5 on page 5-9 of the Final Environmental Impact Statement. As noted in the table, the freeway would cross over each trail and no direct impacts would occur. This condition is not uncommon as there are numerous local and regional trails throughout the Phoenix metropolitan area that cross freeways. The proposed freeway would not incorporate land from the Section 4(f) resource, and would have no proximity impacts so severe that the protected activities, features, or attributes that qualifies the trails for protection under Section 4(f) are substantially impaired. |
| 14 | **Purpose and Need** | Providing a new freeway in an area where it would not be fully used would be an unwise expenditure of public funds. Of the projected 51 percent increase in population, 31 percent increase in housing units, and 69 percent increase in jobs between 2010 and 2035, nearly half of these increases are expected in areas that would be immediately served by the proposed freeway (see Final Environmental Impact Statement page 1-21). When the Arizona Department of Transportation 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 proposed freeway is a major component in the Regional Freeway and Highway System. Additionally, the proposed 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 proposed freeway operating in the Study Area. Finally, the proposed freeway would function as intended in the *Regional Transportation Plan*. |

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1 Outdated data projections used, based on
2 outdated date projections that are now six to eight
3 years old. In all the studies, the DEIS provides no
4 alternative analysis to the demolition of the
5 southwest ridge. Over 3 million visitors come to
6 South Mountain Park Preserve annually.
7 THE FACILITATOR: Excuse me, Ms. Lakin.
8 MS. LAKIN: Destroying any part of the
9 mountain to allaying a high-capacity freeway will
10 only have a negative impact on tourism, and the many
11 unique resources. We are not against this freeway,
12 we are against going through South Mountain Preserve.
13 Thank you.
14 THE FACILITATOR: Thank you, Ms. Lakin.
15 We'll now proceed with the
16 non-pre-registered folks.
17 One more comment before we continue. For
18 those of you who see your name on the screen, if
19 you're in the back parts of the room, if you want to
20 make your way up to get people to either microphone,
21 that will help us through the day. Feel free to move
22 up. At this point Suzanne Rothwell.
23 Thank you.
24 MS. ROTHWELL: Good morning. Thank you
25 for the opportunity to speak. Is this working? No.

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1 Well, don't worry, I have a loud voice.
2 I represent Save Our Mountains
3 Foundation. And I have an official statement that
4 I've sent to you via your e-mail source. But I
5 wanted to stand here today and say that we are
6 opposed to any cutting through the South Mountain
7 Park Preserve. We are opposed to any taking of the
8 Phoenix Mountain Preserve System.
9 And I think perhaps the DEIS, which is a
10 long and wordy document, is most deficient in what it
11 doesn't say. Well, it's most obvious by what it
12 doesn't say. And it does say that this is going to
13 be an economic benefit to Phoenix. But what it
14 doesn't say is that Phoenix has companies relocating
15 here, people coming to live here because of our
16 beautiful weather and our outdoor lifestyle. And if
17 you take away the heart of our preserve system by
18 chopping into the southwest reaches of South Mountain
19 Park, we believe that will be a huge negative.
20 We've got the Maricopa Trail, Sun Circle
21 Trail, and other local trails in that area. In your
22 document you say that within a quarter of a mile it
23 will be impacted, anything more than outside of a
24 quarter of a mile will not be impacted. As a hiker
25 myself, I can tell you that's not true. And who will

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| Code | Issue | Response |
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| 1 | **Section 4(f) and Section 6(f)** | City of Phoenix planning efforts since the mid-1980s illustrate an awareness of the potential for the proposed 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 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 park, but did not identify any feasible and prudent alternatives to avoid impacts. 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-39 and 5-31). The activities that make the park such a highly valued tourist attraction (recreational activities, interaction with the Sonoran Desert) would remain. 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 the Final Environmental Impact Statement, starting on page 5-23). Therefore, the proposed freeway is consistent with regional planning efforts. |
| 2 | **Section 4(f) and Section 6(f)** | The Maricopa County trails that would cross the freeway are noted in Figure 5-5 on page 5-9 of the Final Environmental Impact Statement. As noted in the table, the freeway would cross over each trail and no direct impacts would occur. This condition is not uncommon as there are numerous local and regional trails throughout the Phoenix metropolitan area that cross freeways. The proposed freeway would not incorporate land from the Section 4(f) resource, and would have no proximity impacts so severe that the protected activities, features, or attributes that qualifies the trails for protection under Section 4(f) are substantially impaired. |

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| 3 | want to go hike in a park where there's a huge eight-lane freeway cut through the southwest region. So Save Our Mountains Foundation would like to encourage you, and whoever in the state needs to make this happen, to negotiate better with the Gila River Indian community and the Indian community at large, and we hope that they will also come to the table to talk, and that we can make a freeway happen where it doesn't chop into the preserve and part of what forms a crown and glory for the City of Phoenix. We don't have oceans, we don't have beaches, but we do have a beautiful preserve system. Thank you very, very much. THE FACILITATOR: Thank you, Ms. Rothwell. Michael Goodman. MR. GOODMAN: Thank you. I'm Michael Goodman. I'm also with the Phoenix Mountains Preservation Council, and I am a member of the ADOT Citizens Advisory Team. Pretty much I agree with what has already been said, so I'll be pretty brief. I did finish reading the EIS, and with regards to the E-1 section, I was highly disappointed. I know during the so-called 12 years we've been studying this, we had a number of reports, I guess the E-1 was |

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| 3 | **Alternatives** | 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 Final Environmental Impact Statement page 2-1). The Arizona Department of Transportation and Federal Highway Administration 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 Gila River Indian Community land were attempted (see Final Environmental Impact Statement Chapter 2, *Gila River Indian Community Coordination*), the Gila River Indian Community has long held a position of not allowing the proposed freeway to be located on its land. For example, a coordinated referendum of Gila River Indian Community members to favor or oppose construction of the proposed freeway on Gila River Indian Community land or to support a no-build option occurred in February 2012, and Gila River Indian Community members voted in favor of the no-build option. Moving forward, therefore, the proposed action cannot be located on the Gila River Indian Community (see Final Environmental Impact Statement page 3-25). The Gila River Indian Community's position regarding a "no-build" option was considered in the Draft and Final Environmental Impact Statement. That position is formally known as the No-Action Alternative and was evaluated in depth in assessments of the impacts of the proposed action on each resource. Whether alignments to develop on Gila River Indian Community land are ultimately identified or not, the Federal Highway Administration, Arizona Department of Transportation, and Maricopa Association of Governments will continue to coordinate with the Gila River Indian Community regarding concerns and potential mitigation for those concerns. |

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1 built unless there is a sidewalk or a trail for
2 pedestrian and bike traffic next to it, so a person
3 should be able to travel any way you can. Now is the
4 time to make that possible.
5 In closing, I ask that we build the road
6 now. 30 years is long enough and as we all know,
7 costs have gone up substantially and will continue to
8 rise with each day, week, month, year, or, in this
9 case, three decades, we wait.
10 When first proposed, it was with the
11 future needs in mind. Well, the future has arrived.
12 It is time to act. We cannot wait any longer.
13 Thank you very much. I appreciate you
14 listening.
15 THE FACILITATOR: Thank you, Mr. Mockus.
16 Just one note. For those of you who are,
17 I understand it's very difficult sometimes in working
18 with prepared notes to keep in mind the time here.
19 So if you would, from time to time, if you are
20 working from notes, please take time out to
21 double-check the time. You're doing a great job and
22 we appreciate that. Thank you.
23 Sandy Bahr.
24 MS. BAHR: Thank you. My name is Sandy
25 Bahr. I'm the chapter director for the Sierra Club

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1 here in Arizona. And we will be submitting detailed
2 written comments, but I wanted to say a few things
3 this morning.
4 First of all, we are strongly opposed to
5 construction of this freeway and support the no-build
6 option. No-build, as we've said repeatedly for many
7 years, I don't know if it's been 30, but pretty close
8 to it, no-build doesn't mean no action. We should be
9 investing in existing infrastructure, which has been
10 in dire need of it, and in more mass transit options.
11 Phoenix doesn't need another freeway.
12 As proposed, as you have heard, as you
13 know, this project would destroy a portion of South
14 Mountain Park, which is a key component of our
15 community. It would exacerbate air pollution,
16 destroy wildlife and wildlife habitat and exacerbate
17 urban sprawl. It was a bad idea 30 years ago; it's a
18 bad idea today. There are many other issues with
19 construction of this freeway. Increased traffic and
20 traffic congestion. We all know freeways give you
21 just a little bit of respite, and before you know it,
22 they're even more congested. And if it does what
23 some people said it is supposed to do and brings more
24 trucks in instead of taking 85, we'll have even more
25 congestion and more pollution in the Phoenix area,

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| 1 | **Purpose and Need** | 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. 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). |
| 2 | **Section 4(f) and Section 6(f)** | The proposed 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, *Section 4(f) Evaluation*].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. As such, the freeway would go through the park's southwestern limits. 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 Final Environmental Impact Statement pages S-39 and 5-31). Phoenix South Mountain Park/Preserve would remain the largest municipally owned park in the United States. The activities that make the park a highly valued resource (recreational activities, interaction with the Sonoran Desert) would remain. Nine-tenths of a mile of the proposed freeway would pass through the park's southwestern edge (see Final Environmental Impact Statement page 5-13). |
| 3 | **Air Quality** | The Final Environmental Impact Statement addresses the history of air quality in the region (see text beginning on page 4-68 of the Final Environmental Impact Statement). The 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 to protect the public health. Air quality in the Phoenix metropolitan area has improved over time; Phoenix was redesignated to attainment/maintenance for carbon monoxide in 2005, and the U.S. Environmental Protection Agency recently determined that Phoenix has attained the particulate matter ($PM_{10}$) standard. These improvements are largely associated with cleaner fuels and lower-emission vehicles along with local controls on fugitive dust. Future emissions would also be reduced by the use of cleaner burning fuels, technological advances in automotive design (including the greater use of alternative fuel vehicles), reformulated gasoline, gas can standards, stricter enforcement of emission standards during inspections, heavy-duty diesel engine and on-highway diesel sulfur control programs, dust control programs, and others. |

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1 which already has unhealthy air for particulates and
2 ozone. And transportation is a key component of both
3 of those pollutants.
4 The other thing that I wanted to mention
5 is that in not looking at some of these alternatives,
6 you really have failed to evaluate the full range of
7 reasonable alternatives. This freeway was something
8 that ADOT has wanted to do, MAG has wanted to do, and
9 no matter how many facts are presented, no matter how
10 much information is presented, that it's a bad idea,
11 that it no longer serves the purpose that it was
12 intended to serve, you just keep pushing forward with
13 it.
14 We encourage rejecting this freeway,
15 going back to the drawing board, and looking at
16 investing our hard-earned tax dollars in alternatives
17 that will work for our community and for future
18 generations of Arizonans.
19 So thank you very much. And we'll be
20 presenting more detailed written comments.
21 THE FACILITATOR: Thank you, Ms. Bahr.
22 David Gironda. Did I pronounce that
23 correctly?
24 MR. GIRONDA: Gironda. And I do have a
25 written statement which I can give to the recorder to

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| Code | Issue | Response |
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| 3 (cont.) | | The air quality assessment for the proposed freeway analyzed impacts from carbon monoxide and particulate matter ($PM_{10}$) and followed U.S. Environmental Protection Agency guidelines. 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). 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 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.<br>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. |
| 4 | **Biology, Plants, and Wildlife** | The section, *General Impacts on Vegetation, Wildlife, and Wildlife Habitat*, beginning on page 4-125 of the Draft Environmental Impact Statement, discloses by what means the proposed action and its alternatives would affect vegetation, wildlife, and wildlife habitat. A Biological Evaluation was submitted to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and Gila River Indian Community Department of Environmental Quality that addressed threatened, endangered, and candidate species,. 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 (Gopherus agassizii, draft unpublished abstract compiled and edited by the Heritage Data Management System, Phoenix). Current information 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).<br>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 as well as 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 *Mitigation*, beginning on page 4-138 of the Final Environmental Impact Statement). |

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| 5 | **Urban Sprawl** | Unplanned growth is often termed "urban sprawl." Generally, this term is used in the context of rapid and uncontrolled urban growth onto previously undeveloped land—usually on the outskirts of an existing urban area. Projects like the proposed freeway are often identified as contributors to urban sprawl. Freeway projects are often cited as making land at the urban fringe more accessible and, therefore, more attractive for development. However, examination of data comparing population and land use between 1975 and 2000 suggests major transportation projects like the proposed freeway do not induce growth in the region (see Final Environmental Impact Statement pages 4-170 through 4-174). The proposed freeway would be implemented in a historically quickly urbanizing area (most noticeably in the Western Section of the Study Area, although a nationwide recession beginning in 2007 has slowed growth). In the Eastern Section of the Study Area, the proposed freeway would abut public parkland, Native American land, and a near-fully developed area—therefore, any contribution to accelerated or induced growth would be constrained. The proposed freeway would be built in an area planned for urban growth as established in local jurisdictions' land use plans for at least the last 25 years. |
| 6 | **Purpose and Need** | As noted in the Draft Environmental Impact Statement, when compared with the No-Action Alternative, the Preferred Alternative would result in less energy consumption (page 4-160), regional improvements to air quality (page 4-79) that would be expected to produce health benefits, and economic benefits of reducing regional traffic congestion (page 4-57), and would be consistent with local and regional long-range planning efforts (page 4-18). |
| 7 | **Alternatives** | Federal regulations stipulate that an environmental impact statement shall "rigorously explore and objectively evaluate all reasonable alternatives" (40 Code of Federal Regulations § 1502.14; see Final Environmental Impact Statement page 3-1). All alternatives were screened using a multidisciplinary set of criteria. Nonfreeway alternatives were considered (see Final Environmental Impact Statement pages 3-3 through 3-6). Among other things, the study took into account improving existing freeways, improving or expanding other travel modes, strategies to reduce travel demand, and various roadway configurations. This study examined not only the potential impacts from improvements, but also the consequences of building nothing, the No Action Alternative. As proposed by the Maricopa Association of Governments, the South Mountain Freeway would be part of the Regional Freeway and Highway System. Other transportation improvements such as mass transit and local roads are specified in the *Regional Transportation Plan* and were considered during the evaluation of this proposed new freeway. As noted in the Final Environmental Impact Statement (see page 3-60), the proposed freeway would provide opportunities to enhance operation of future mass transit improvements. |

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**From:** Projects
**To:** ADOT
**Subject:** FW: Loop 202 South Mountain Freeway Study
**Date:** Monday, May 20, 2013 8:23:42 AM

**From:** Heidi Cordova [mailto:hcordova@cox.net]
**Sent:** Sunday, May 19, 2013 1:51 PM
**To:** Projects
**Subject:** Loop 202 South Mountain Freeway Study

*TO: Arizona Department of Transportation and the Federal Highway Administration*

*RE: Sun Circle Trail Riders – Opposition to South Mountain Freeway Construction*

SCTR is an organization put into place by Arizona visionaries, and for the last 40 years SCTR has continued to ride our horses in the South Mountain Park.

**SCTR is steadfastly opposed to any alignment of the Loop 202 South Mountain Freeway that allows for trespass onto the Mountain Preserve or for any excavation into the South Mountain what so ever. These mountain preserves ensures a lifestyle that 80% of Arizona voters consistently support. The mountain preserves are unique and are for people and wildlife, not for vehicle trespass. SCTR does not agree with** many of the DEIS assumptions finding them objectionable and deficient in the following analysis areas.

1 Unexceptable Pre-Decisional Actions: ADOT has made some pre-decisional actions with the purchase of property before the Draft Environmental Impact Statement (DEIS) was released. Phoenix Mountains Preservation Council (SCTR) questions the legality of this action and the entire DEIS when it appears ADOT has already made considerable financial investment to establish the alignment for the South Mountain Freeway rather than follow the prescribed process.

2 Dismal Wildlife Connectivity: The DEIS does not meet the minimal requirements for coordination and analysis of wildlife resources. The Arizona Game and Fish Department was consulted in 2009 during scoping. The current connection to the Estrella Mountains allows for passage of mule deer, javelina, bobcat, and mountain lion. There is no evidence of further efforts to ascertain wildlife connectivity needs or possible mitigation. The Sonoran desert tortoise provides additional evidence of inadequate cumulative analysis given its status as a U.S. Fish & Wildlife Service's candidate species. The mountain ridge area slated for demolition meets the definition for the tortoise's habitat.

3 Unreasonable Taking of Mountain Preservation Lands: The DEIS states in Figure 5-7 Public Parkland the avoidance of taking over 30 acres of the Preserve is "not prudent and feasible". The taking of this mountainside will destroy important archeological, spiritual, cultural and recreational sites with no realistic or reasonable mitigation possible in the study. The study failed to recognize and address new two trails, Gila and Bursera Trails, created in the southwest end of the Preserve in 2010.

4

5 Outdated Data Projections Used: The DEIS is based on outdated data projections that are now six to eight years old. The analysis does not acknowledge the impact the major

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| 1 | **Alternatives** | The comment suggests the environmental impact statement process was biased by a history of property acquisitions within the Study Area. More specifically, properties falling within the limits of the Preferred Alternative, as identified in the Final Environmental Impact Statement, were targeted for acquisition.<br>As noted in text on page 3-54 of the Final Environmental Impact Statement, the Arizona Department of Transportation began acquiring land for the original alignment in 1988. Between 1988 and 2001, the Arizona Department of Transportation acquired approximately 293 acres. Most of this land (258 acres) is located in the Eastern Section along Pecos Road. In 2006, the Arizona Department of Transportation began protective and hardship land acquisition in the alignment right-of-way footprint for the W59 and E1 Alternatives. Between 2006 and October 2013, the Arizona Department of Transportation purchased 326 acres (303 in the Western Section and 23 in the Eastern Section).<br>The process for hardship and advanced acquisitions is explained in text on page 4-50 of the Final Environmental Impact Statement.<br>The comment infers that by taking such action, the objective equal consideration of the alternatives studied in detail in the Draft and Final Environmental Impact Statements is tainted. Advanced acquisitions in parallel to a National Environmental Policy Act environmental determination process is not unprecedented and is common practice. In this case, property acquisitions by the Arizona Department of Transportation for purposes of implementing the proposed action are done at risk as communicated to the agency by the Federal Highway Administration. If another action alternative were to be ultimately selected, the agency would likely have to place the acquired properties on the market for sale and purchase. The Arizona Department of Transportation attempts to balance the risk against its mission of timely delivery of transportation infrastructure to the driving public. Further, Federal Highway Administration regulations do not allow the ownership of right-of-way to be a factor in the decision regarding the selection of an alternative. |
| 2 | **Biology, Plants, and Wildlife** | The section, *General Impacts on Vegetation, Wildlife, and Wildlife Habitat*, beginning on page 4-125 of the Draft Environmental Impact Statement, discloses by what means the proposed action and its alternatives would affect vegetation, wildlife, and wildlife habitat. A Biological Evaluation was submitted to the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and 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 (Gopherus agassizii, draft unpublished abstract compiled and edited by the Heritage Data Management System, Phoenix). Current information 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).<br>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 |

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| 6<br>7<br>8 | economic downturn had and it brings into question the validity of projected growth levels put forth in the DEIS. In all the alternative studies, the DEIS does not provide one alternative analysis to the demolition of the southwest ridges of South Mountain. Furthermore, nowhere in this study is there an assessment of hazardous material truck traffic nor any mention of managing this truck traffic and the consequences of a serious hazard waste incident.<br><br>Over 3 million visitors come to South Mountain Park/Preserve annually, according to City of Phoenix statistics. Destroying any part of the mountain to align a high-capacity freeway will only have a negative impact on tourism and the many unique resources the park offers.<br><br>We urge ADOT to stop providing studies that do not accurately or thoroughly address the impact this freeway has on South Mountain. It's time to stop the $20 million and more in wasted tax payer's money to study the environmental impact and design for an alignment that no longer makes sense.<br><br>Confidentiality and Nondisclosure Notice: This email transmission and any attachments are intended for use by the person(s)/entity(ies) named above and may contain confidential/privileged information. Any unauthorized use, disclosure or distribution is strictly prohibited. If you are not the intended recipient, please contact the sender by email, and delete or destroy all copies plus attachments. |

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| 2 (cont. | | wildlife and for limited human use as well as 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 *Mitigation*, beginning on page 4-138 of the Final Environmental Impact Statement). |
| 3 | **Section 4(f) and Section 6(f)** | The religious and cultural importance of the South Mountains (as exemplified in the comment's reference to the Gila River Indian Community resolution) is acknowledged in the Draft Environmental Impact Statement in several locations, notably pages 4-132 and 5-26 as well as in the Summary of the Draft Environmental Impact Statement. The description in the Draft Environmental Impact Statement is based on input received from the Gila River Indian Community and its members and other Indian Nations and their members. The Draft 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 Draft 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 Gila River Indian Community.<br><br>The Final Environmental Impact Statement includes discussion on efforts to avoid use of Phoenix South Mountain Park/Preserve, starting on page 5-16. Measures to minimize harm to the park as a result of the proposed freeway start 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 Final Environmental Impact Statement pages S-39 and 5-31). The activities that make the park such a highly valued resource (recreational activities, interaction with the Sonoran Desert) would remain. |

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| 4 | **Section 4(f) and Section 6(f)** | South Mountain's newest trails are the Bursera and Pyramid Trails (see Final Environmental Impact Statement page 5-8). The E1 Alternative is approximately 1 mile south of the Pyramid Trail and even farther from the Bursera Trail; thus, it would not affect either trail. The trails have walk-in access from Chandler Boulevard and 19th Avenue, with on-street parking. This walk-in access would be north of and adjacent to the planned extension of Chandler Boulevard and, thus, would not be directly affected. The walk-in access point and the part of the Pyramid Trial at the access point are located adjacent to a residential neighborhood and the City of Phoenix's planned Chandler Boulevard Extension. These trails are typically used for high-intensity recreational activities such as running, hiking, and biking, not noise- or viewshed-sensitive activities. All proposed action alternatives would span existing and proposed trails to avoid impacts. However, during construction (if an action alternative were selected), trails that would be spanned or would be near potential freeway construction would be closed for limited times for safety reasons. Closures would necessitate that trail users detour around construction sites to rejoin the trails farther along their length. According to Phoenix South Mountain Park/Preserve rangers, the Gila Trail—although well-defined—is not a designated trail within the park. That said, the Gila Trail would not be affected by the proposed freeway or by the Chandler Boulevard Extension. The Final Environmental Impact Statement Appendix page A665 contains information directly from the Phoenix General Plan and early coordination with the City of Phoenix Parks Department. The trails in the preserve are exceptions to this statement and were always meant as such. The trails within 1/4 mile of the proposed alternatives were treated separately, as in the case of the Maricopa County Regional Trails System. Should an alternative be selected, the Arizona Department of Transportation and Federal Highway Administration would work closely with the City of Phoenix during final design to ensure the connectivity of trails is maintained, whether they are eligible as Section 4(f) resources or not. |
| 5 | **Purpose and Need** | 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.<br><br>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. The purpose and need and analysis of alternatives were updated and reevaluated using these new socioeconomic projections and corresponding projections related to regional traffic. While new projections based on the 2010 Census showed a lower anticipated population and vehicle miles traveled in 2035 than the previous projections, the conclusions reached in the Draft Environmental Impact Statement were validated in the Final Environmental Impact Statement (see Chapter 3, *Alternatives*). The traffic analysis demonstrated that the proposed project is needed today and will continue to be needed into the future. |

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| 6 | **Alternatives** | Several action alternatives were subject to the alternatives development and screening process; not just the E1 Alternative and alternatives located on the Gila River Indian Community (Figure 3-6 on page 3-10 of the Final Environmental Impact Statement illustrates a representation of such alternatives). Ultimately the other alternatives were eliminated from further study in the screening process and the Gila River Indian Community decided not to give permission to study alternatives on its land (see Final Environmental Impact Statement page 3-25). Therefore, the Arizona Department of Transportation, with concurrence from 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. |
| 7 | **Hazardous Materials** | If the proposed action the Selected Alternative in the record of decision, planning for emergency situations would be initiated. If the plan is amended, it is made available to the Arizona Department of Transportation. |
| 8 | **Section 4(f) and Section 6(f)** | City of Phoenix planning efforts since the mid-1980s illustrate an awareness of the potential for the proposed 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 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 park, but did not identify any feasible and prudent alternatives to avoid impacts. 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-39 and 5-31). The activities that make the park such a highly valued tourist attraction(recreational activities,interaction with the Sonoran Desert) would remain. 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). |

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THE FACILITATOR: Thank you.
If you'd like to speak and haven't registered out front, please do so.
THE FACILITATOR: Will Novak.
MR. NOVAK: This one?
THE FACILITATOR: Please.
MR. NOVAK: Hey guys, how are you doing? My name's Will Novak. I'm the president of the Phoenix Historic Neighborhoods Coalition, but I'm also the secretary of a group called the Thunderdome Neighborhood Association for Nonautomotive Mobility. I guess you can probably assume where I'm going to come down on this issue.
And it doesn't really matter what we say, because you guys are in the freeway-building business; you have been for -- since the 1970s. You're going to build this freeway, come hell or high water; it really doesn't matter what the citizens say or what makes good sense.
I just want to say how disappointed I am. You know, most cities, corrective-thinking cities around the country are tearing down freeways, like San Francisco, they got rid of the Embarcadero Freeway, while we're still building more. Phoenix was once a city there was actually a time where we

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1 fought against building freeways. The Arizona
2 Republic came out and said we don't want to build any
3 more freeways; we don't want be another Los Angeles;
4 we don't want to be a sprawl and air pollution and
5 just horrible places. But thanks to, you know,
6 short-sighted planning, what we sort have become is
7 just a mini version of Los Angeles. I see in your
8 paperwork that this project is going to cost
9 $1.23 billion. How many miles of light rail do you
10 think you can build for that? How many miles of
11 commuter rail? How many trees do you think you could
12 plant for $1.23 billion? I'll bet for that much you
13 could fill up the Salt River running over to 19th
14 Avenue and extend the Tempe Town Lake and achieve the
15 original Rio Salado project vision that the city has
16 had for 60 years now. It's just a classic,
17 short-sighted Phoenix thinking, you know; we just are
18 always in a hurry to screw up and do the wrong thing
19 in this town, and it's just devastating.
20 The fact that you might cut through South
21 Mountain, the largest city-owned park in the world,
22 is disgusting. And your study is such a joke anyhow.
23 I mean, the idea that you even looked at alternatives
24 is laughable. The only alternative you really looked
25 into is the no-build scenario, which you're never

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| Code | Issue | Response |
|---|---|---|
| 1 | **Urban Sprawl** | Unplanned growth is often termed "urban sprawl." Generally, this term is used in the context of rapid and uncontrolled urban growth onto previously undeveloped land—usually on the outskirts of an existing urban area. Projects like the proposed freeway are often identified as contributors to urban sprawl. Freeway projects are often cited as making land at the urban fringe more accessible and, therefore, more attractive for development. However, examination of data comparing population and land use between 1975 and 2000 suggests major transportation projects like the proposed freeway do not induce growth in the region (see Final Environmental Impact Statement pages 4-170 through 4-174). The proposed freeway would be implemented in a historically quickly urbanizing area (most noticeably in the Western Section of the Study Area, although the nationwide recession which began in 2007 slowed growth).). In the Eastern Section of the Study Area, the proposed freeway would abut public parkland, Native American land, and a near-fully developed area—therefore, any contribution to accelerated or induced growth would be constrained. The proposed freeway would be built in an area planned for urban growth as established in local jurisdictions' land use plans for at least the last 25 years. |
| 2 | **Purpose and Need** | The study has considered a variety of transportation modes: transportation system management/transportation demand management, mass transit (commuter rail, light rail, expanded bus service), arterial street improvements, land use controls, new freeways, and a No-Action Alternative. Mass transit modes such as light rail were eliminated from further study because even better-than-planned performance of transit would not adequately address the projected 2035 travel demand (see Final Environmental Impact Statement page 3-4). 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 Final Environmental Impact Statement page 3-6). Such a freeway/light rail system is planned at two locations: along Interstate 10 (Papago Freeway) and along State Route 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 proposed 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 proposed freeway would. Furthermore, the additional right-of-way 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 was eliminated from further study. The freeway mode was determined to be an appropriate response to the project's purpose and need.<br>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 |

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1 going to do. I mean, is this freeway even necessary
2 when we have MAG's commuter rail plans come online;
5 3 what about the West Valley light rail going out that
4 way? You know, it doesn't even talk about induced
5 demand. Anyone who studies transportation and
6 planning, all you get when you build a freeway is you
7 get more traffic. We've known this for 40 years now,
1 8 that new freeways just induce new demand. All you're
9 going to do is build a freeway, which is going to do
10 what, it's going to create more sprawl. There's
11 going to be a Walmart that pops up and a Kmart, and a
12 KFC, and a Church's chicken, and all that stuff, and
13 they're going to create more and more cars, and more
6 14 and more air pollution, so you haven't done anything.
15 But unfortunately, the way we have things
16 set up here is ADOT is in the highway building
4 17 business, so that's a joke; you're going to build a
18 highway, no matter what. But just -- yeah, I just
19 would hope that you would take a more holistic
20 approach in the future, you know, and look into
21 what's actually good for this city and this area.
22 Because I'm under 30 years, I've got to live here for
23 the next 70 years, and I don't want to choke to
24 death. And I'm just -- just tired of it. Luckily,
25 when my generation grows up and is in charge, this

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| 2 (cont.) | | Final Environmental Impact Statement beginning on page 1-11. The purpose and need and analysis of alternatives were updated and reevaluated using these new socioeconomic projections and corresponding projections related to regional traffic. While new projections based on the 2010 Census showed a lower anticipated population and vehicle miles traveled in 2035 than the previous projections, the conclusions reached in the Draft Environmental Impact Statement were validated in the Final Environmental Impact Statement (see Chapter 3, *Alternatives*). The traffic analysis demonstrated that the proposed project is needed today and will continue to be needed into the future. |
| 3 | **Section 4(f) and Section 6(f)** | As discussed on page 5-16 of the Final Environmental Impact Statement, many alternatives were examined to avoid the use of the South Mountain Park/Preserve; 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 Appendix 1-1 of the Final Environmental Impact Statement.) 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 Final Environmental Impact Statement pages S-39 and 5-31). Phoenix South Mountain Park/Preserve would remain the largest municipally owned park in the United States. The activities that make the park a highly valued resource (recreational activities, interaction with the Sonoran Desert) would remain. Nine-tenths of a mile of the proposed freeway would pass through the park's southwestern edge (see Final Environmental Impact Statement page 5-13). |
| 4 | **Alternatives** | Several action alternatives were subject to the alternatives development and screening process; not just the E1 Alternative and alternatives located on the Gila River Indian Community (Figure 3-6 on page 3-10 of the Final Environmental Impact Statement illustrates a representation of such alternatives). Ultimately the other alternatives were eliminated from further study in the screening process and the Gila River Indian Community decided not to give permission to study alternatives on its land (see Final Environmental Impact Statement page 3-25). Therefore, the Arizona Department of Transportation, with concurrence from 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.<br>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, |

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1 kind of crap won't be happening anymore.
2 Thanks.
3 Thanks for typing.
4 THE FACILITATOR: Good afternoon. I'd like
5 to introduce the 2:00 to 4:00 p.m. panel, with the
6 Arizona Department of Transportation, Brock Barnhart,
7 with the Federal Highway Administration, Director
8 Moreno, and with the Arizona Department of
9 Transportation, Brent Cain.
10 Our next speaker is Richard Tracy, Sr.
11 Mr. Tracy, you now can pick up the
12 microphone.
13 MR. TRACY: Can I have about five minutes
14 to catch my breath?
15 THE FACILITATOR: Most certainly.
16 MR. TRACY: It wasn't always this way, you
17 know. I just lived here 43 years too long.
18 THE FACILITATOR: Welcome, Mr. Tracy, you
19 have three minutes.
20 MR. TRACY: All right. Thank you very
21 much. It was quite difficult for me to come here.
22 It's been difficult for me to attend meetings all
23 over the Valley and send letters, and disappointing
24 when nobody pays any attention to it. I hope this
25 is -- okay, as I say, it was difficult to come here.

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| 4 (cont.) | | housing, and traffic projections in June 2013. The new data are presented in the Final Environmental Impact Statement beginning on page 1-11. The purpose and need and analysis of alternatives were updated and reevaluated using these new socioeconomic projections and corresponding projections related to regional traffic. While new projections based on the 2010 Census showed a lower anticipated population and vehicle miles traveled in 2035 than the previous projections, the conclusions reached in the Draft Environmental Impact Statement were validated in the Final Environmental Impact Statement (see Chapter 3, *Alternatives*). The traffic analysis demonstrated that the proposed project is needed today and will continue to be needed into the future |
| 5 | **Purpose and Need** | The proposed freeway is part of the *Regional Transportation Plan* for the Maricopa Association of Governments region. The *Regional Transportation Plan*, as described on pages 1-5 and 1-10 of the Final Environmental Impact Statement, addresses freeways, streets, transit, airports, bicycle and pedestrian facilities, freight, demand management, system management, and safety. The proposed freeway is only one part of the overall multimodal transportation system planned to meet the travel demand needs of the Maricopa Association of Governments region. |
| 6 | **Air Quality** | The Final Environmental Impact Statement addresses the history of air quality in the region (see text beginning on page 4-68 of the Final Environmental Impact Statement). The 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 to protect the public health. Air quality in the Phoenix metropolitan area has improved over time; Phoenix was redesignated to attainment/maintenance for carbon monoxide in 2005, and the U.S. Environmental Protection Agency recently determined that Phoenix has attained the particulate matter ($PM_{10}$) standard. These improvements are largely associated with cleaner fuels and lower-emission vehicles along with local controls on fugitive dust. Future emissions would also be reduced by the use of cleaner burning fuels, technological advances in automotive design (including the greater use of alternative fuel vehicles), reformulated gasoline, gas can standards, stricter enforcement of emission standards during inspections, heavy-duty diesel engine and on-highway diesel sulfur control programs, dust control programs, and others.<br>The air quality assessment for the proposed freeway analyzed impacts from carbon monoxide and particulate matter ($PM_{10}$) and followed U.S. Environmental Protection Agency guidelines. 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). 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 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.<br>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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The amount of money that we're spending on this freeway, 100 million per, what was it, mile, that's outrageous, not to mention the $20 million to complete this DEIS. People keep talking about cutting down on pollution, but what about the pollution in our community? Do we not matter? The air that we breathe, is our air any less important than the people of Phoenix? When are we going to actually matter? When are those considerations going to happen?

And you're blasting through sacred mountain that is religious and sacred to our people. I can't elaborate on that because my time is out, but I just want to mention that that is significant to our people.

THE FACILITATOR: Thank you, Ms. Riddle.

Our next speaker is David Martin. We welcome David Martin.

Welcome, Mr. Martin.

MR. MARTIN: Thank you.

THE FACILITATOR: You have three minutes.

MR. MARTIN: Thank you. Members of the panel, for the record, my name is David Martin, I sort of have multiple hats here today. I am the president of the Associated General Contractors, I chair an organization called We Build Arizona, and I am an Ahwatukee resident, so I sort of wear three hats.

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1 But one of the things I want to bring to your
2 attention is a poll that we conducted and submitted into
3 the record, with your permission. Members of the South
4 Mountain study team, thank you very much for the
5 opportunity to speak today. I'm here on behalf of all
6 the memberships that I mentioned before to talk to you
7 about a poll that we conducted and letting you know that
8 Valley commuters have waited in traffic jams too long.
9 The freeway will cut traffic congestion across the metro
10 area, it'll reduce air pollution, and save drivers time
11 and money. Registered voters responding to a poll that
12 our organization conducted a little more than two weeks
13 ago happen to agree; 64.3 percent of likely voters in
14 Maricopa County support construction of the freeway.
15 Just 19.6 percent said they were either opposed or likely
16 to oppose the project.
17 And in a separate survey, we found that 59
18 percent of likely voters living in Ahwatukee and Laveen
19 support the freeway as well. As a resident of Ahwatukee
20 for 15-plus years and a third-generation Arizonan, I know
21 that people support the project and support the corridor
22 for the project. Jumping onto I-10 downtown in Phoenix
23 every morning is extraordinarily hectic. If the
24 projections of the study come true, I might as well
25 abandon the area of Ahwatukee and convince someone to





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take my home. Honestly, I don't want to be around if a freeway is not built. This corridor is extraordinarily important to congestion and to the future of Ahwatukee.

Ladies and gentlemen of the committee, the two polls I want to submit to the record today, the voters have spoken three times on this issue: Once in 1985, one in 2004, and again with the poll that we submitted or will be submitting here today. We must bring this EIS to its conclusion; 12 years of study, this corridor flies in the face of the voters who voted this project in. There is no more important project to area commuters and workers in the southbound freeway project. We must build it now. Thank you very much.

THE FACILITATOR: Thank you, Mr. Martin.

I'd like to invite our next speaker, Joseph Morago.

Welcome, Mr. Morago. You have three minutes.

MR. MORAGO: For the record, it's Joseph Morago. Good afternoon, my name is Joseph Morago. I was born and raised in Arizona, I'm a Native American from Akimel AuAuthm tribe, a member of Gila River Alliance for a Clean Environment, as well as PARC. I'm here today to state my opposition for the proposed South Mountain Loop 202 freeway. After reviewing the DEIS, I was shocked to learn how little information is present in





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| 1 | | Comment noted. |