July 8, 2019

Interstate 11 Tier 1 EIS Study Team
c/o ADOT Communications
1655 W. Jackson St., Mail Drop 126F
Phoenix, AZ 85007
Sent via email: I-11ADOTStudy@hdrinc.com

Re: Comments on the Interstate 11 Tier 1 Draft Environmental Impact Statement, Nogales to Wickenburg

Dear Interstate 11 EIS Study Team:

Thank you for the opportunity to comment on the Interstate 11 Tier 1 Draft Environmental Impact Statement, Nogales to Wickenburg. Please accept these comments on behalf of Sierra Club’s Grand Canyon (Arizona) Chapter and our more than 60,000 members and supporters in Arizona.

Sierra Club’s mission is “to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth’s ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environments.” Sierra Club has long been committed to protecting public lands and public health and to ensuring that transportation and development accommodate ecological considerations. Our members have a significant interest in the proposed I-11 as many live in or use areas within and near these corridors and will be affected by the additional air pollution, destruction of wildlife habitat, significant noise, and other negative impacts of the proposed freeway and associated corridor.

Sierra Club opposes the proposed I-11 Freeway Corridor and the three “build” alternatives outlined in the Draft Environmental Impact Statement (DEIS) and remains concerned about the significant negative impacts of this proposed corridor, and strongly urges selection of a “no build” alternative. Note that a “no build” alternative need not be a “do nothing” alternative. The Arizona Department of Transportation (ADOT) could instead seriously consider and invest dollars in passenger rail transportation along the I-10 corridor and, as noted in the DEIS “Arizona freight rail corridors will have adequate rail capacity for the foreseeable future.” (DEIS at 2-11) In addition to these comments, Sierra Club supports and incorporates by reference the comments made by the Coalition for Sonoran Desert Protection et al. Sierra Club Grand Canyon Chapter is a co-signer on those comments.

Background
Our country annually invests more than $200 billion of our taxes in transportation infrastructure, including freeways, bridges, airports, public transportation, and sidewalks associated with roads. In 2014, $279 billion was spent on transportation infrastructure, 60 percent of which was allocated to
These projects have by-and-large continued to promote our nation’s reliance on oil and gas and to exacerbate public health and safety issues and both directly and indirectly contribute to our climate crisis as most of our nation’s and Arizona’s greenhouse gas emissions come from vehicles.

The National Environmental Policy Act (NEPA) and the regulations promulgated to implement the act (42 U.S.C. § 4321, et seq., 40 CFR § 1500.1, et seq.) mandate that the lead agency, the Federal Highway Administration (FHWA), assesses and evaluates the environmental impacts of the I-11 Corridor and that reasonable alternatives be considered (42 U.S.C. § 4332 102 C). NEPA requires the lead agency to “[r]igorously explore and objectively evaluate all reasonable alternatives,” including those that are “not within the jurisdiction of the lead agency” (40 CFR 1502.14(a) and (c)). The Study Area for the proposed I-11 was arbitrarily limited, as was the range of options, including the no-build option. FHWA must seriously consider addressing transportation issues via improving infrastructure outside the Study Area and how improved mass transit both in and outside the Study Area could improve transportation and reduce the need to construct new roadways. Further, it admits that rail freight capacity is adequate for the near future.

FHWA, as the lead agency for this project, must consider cumulative impacts as well as direct and indirect impacts of the proposed corridor. The potential impacts of this project are large and significant and are underestimated in the DEIS. As mandated by NEPA, the DEIS should have included all reasonable alternatives, an evaluation of those alternatives, and mitigation measures to minimize the disturbance and impact of the project. This DEIS does not include a transit/rail option and has missed many key impacts. As far as mitigation goes, it is clear that many of the impacts from this proposal simply cannot be mitigated.

The Recommended Alternative route identified in the DEIS would be destructive and have devastating and unmitigable impacts to public lands, wildlife, air quality, and human health.

Purpose and Need
We have expressed this previously but ask again that FHWA and the Arizona Department of Transportation (ADOT) evaluate and demonstrate the need for this corridor and why it is being proposed for these locations. Economics and congestion were the main factors considered in order to justify moving forward with this project. Although these are both important elements, many other issues should also be taken into account when justifying whether or not a project is needed and should proceed. Examples of other factors to consider include public needs and desires, environmental impacts, public health concerns, land use, and more. By only focusing on economics and congestion, the “justification” for this corridor is biased from the beginning and clearly swayed toward the need for it. If even one or a combination of the other factors were used without considering economics or congestion, the justification outcome would be quite different. In order to provide a complete picture and to truly understand whether or not this corridor is justified, all factors must be included in the analysis.

Furthermore, we question that this proposed freeway would even address the congestion issues – each time another freeway is built, we have another crowded freeway, due, at least in part, to induced demand, which FHWA and ADOT fail to consider and evaluate in the DEIS. That is a

---

2 https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions
serious omission in evaluating the purpose and need, developing the alternatives, and evaluating the impacts of those alternatives.

**Negative Impacts of Freeways**
The construction of freeways can introduce or amplify various negative impacts to local economies, ecology, and public health, especially for vulnerable populations. Freeways create a bypass system, whereby travelers or even locals can reach their destinations without exposure to local markets and services. Although tax dollars contribute immensely to the building and long-term maintenance of freeways, this infrastructure presence does not pay back these funds and even potentially decreases cities’ revenues as well the property values of taxpayers living near the freeway. Such effects should have been evaluated in the DEIS.

Focusing on interstates and freeways without providing adequate alternate transportation modes continues America’s forced addiction to vehicles, in which people must have access to an automobile in order to commute or travel. This disproportionately affects low-income residents and is a huge burden to taxpayers. In addition, these roads frequently cut through low-income and predominantly minority neighbors, resulting in fragmentation of neighborhoods and displacement of people who do not have good housing alternatives.

Local ecology suffers enormously. In fact, roads are a chief threat to both local and global biodiversity. Regarding wildlife, the leading cause of death for many animals and for reductions in local wildlife populations can be attributed to road mortality. More than one million vertebrates die on roads every day in the United States, but this number may be a significant underestimate of true mortality rates and also does not account for impacts on invertebrate species. Effects extend far beyond just direct mortality and the immediate roadway, however. The presence of a freeway fragments and alters species’ habitats, which is the leading cause of species’ declines and sensitivity. Chemical, light, and noise pollution associated with freeways act as a detriment to various species’ breeding and migration patterns and can negatively affect normal behaviors. Lands cleared for roads can also foster invasive species, which substantially alter ecosystem composition and processes. In short, the

---

3 Mayors Innovation Project 2013
10 Environmental Science 2016
11 Jackson and Fahrig 2011.
12 Environmental Science 2016
cumulative impacts of roads on the natural system are enormous and overwhelming. These are significant impacts, yet they are often overlooked or brushed aside in transportation planning.

Further, the implementation of road infrastructure threatens public health in multiple regards. Vehicle injuries are one of the leading causes of death in the world. Both motorists and non-motorists are affected. Freeways and interstates pose a risk to pedestrians and bicyclists, as these non-automobile users are exposed to hard-to-navigate areas near on and off ramps where vehicles are traveling at higher speeds in areas with restricted visibility. As with wildlife, effects are not limited to just direct mortality. Increased vehicle emissions from freeways can exacerbate numerous health conditions, including asthma, and can increase ground-level ozone production. Additionally, freeways contribute to elevated temperatures through the urban heat island effect, an issue with which many communities in Arizona struggle.

According to the Environmental Protection Agency, transportation—cars, trucks, airplanes, etc.—is the largest emitter of greenhouse gases and emits approximately 29 percent of our nation’s overall greenhouse gas emissions. A new freeway will simply further contribute to this problem and is one more reason that a non-freeway option should be considered.

**Environmental Impacts of the Recommended Alternative**

The proposed corridor and associated infrastructure will negatively affect protected lands; wildlife, habitat, and wildlife-movement corridors; native vegetation and vegetation communities; endangered and special-status species (animals and plants); riparian areas and desert washes; air quality, including to Saguaro National Park (a Class I Area), non-attainment areas, and attainment areas that may be driven closer to non-attainment with the increased traffic associated with a freeway; and implications relative to climate change. These impacts will occur across the life of the project, including during surveying, construction, and implementation and maintenance.

Every attempt should have been made to avoid sensitive lands, riparian areas, important wildlife habitat and movement corridors, special status plants, and archaeological sites, but instead it is as if FHWA and ADOT are targeting some of our most critical and sensitive lands. Potential effects include, but are not limited to, soil disturbance and eradication of plant communities; soil erosion; disturbance of ground-dwelling species, including amphibians, reptiles, mammals, and ground-nesting birds; interference with species that prefer locations distant from roads; effects on species that do not cross open areas; interference with birds and bats, whether migrating or not; and potential for pollution or diversion of waterways.

---

18 Mayors Innovation Project 2013
22 Mayors Innovation Project 2013
Limiting and eliminating negative impacts to wildlife, vegetation, riparian areas, and cultural sites should be a top priority for FHWA and ADOT and cannot be mitigated relative to the Recommended Alternative. Significant efforts have been made within the proposed corridor to maintain large natural open spaces, to protect sensitive and common species, to provide wildlife movement corridors, to eradicate invasive species, and much more. Diverse groups from across the spectrum have collaborated on these efforts. The proposed I-11 corridor will reverse those efforts and negate decades of work among collaborative stakeholders.

The proposed monitoring and mitigation in the DEIS is inadequate and quite frankly, the significant negative degradation of resources associated with the recommended alternative cannot be mitigated.

The DEIS promotes the economic benefits of the proposed I-11, but fails to adequately evaluate economic downside, including its contribution to an unsustainable economic structure and whether the proposed corridor could move the region further away from developing a more sustainable economy. In light of long-term drought, dwindling Colorado River water supplies and an impending shortage, more extreme heat, more extreme fires, and the various implications of climate change, assuming that business-as-usual can continue and that a new major interstate will help the economy, at least in the long-term, is unjustified.

The Recommended Alternative will harm Air Quality

The National Ambient Air Quality Standards (NAAQS) set maximum allowable levels for six criteria air pollutants in order to protect human health and other secondary values, such as public safety. See 42 U.S.C. § 7409(b). Particulate matter with an aerodynamic diameter less than 10 microns (PM$_{10}$) is a pollutant subject to the NAAQS. See 40 C.F.R. § 50.6 (establishing the NAAQS for PM$_{10}$). Both short-term and long-term exposure to PM$_{10}$ can lead to increased premature mortality, increased hospital admissions and emergency room visits, and the development of chronic respiratory disease.

Construction of and operation of a freeway in this region will exacerbate the already significant and unhealthy levels of PM$_{10}$ in both Maricopa and Pinal counties, which already have regular exceedances of the health-based standards, and will contribute to greater PM$_{10}$ issues in southern Arizona. There are also ongoing visibility issues associated with the particulates, which is a secondary consideration under the Clean Air Act. Furthermore, the freeway will contribute to higher ozone levels in the Phoenix-area, which already is in violation of the health-based standard and in Tucson which now appears to be in violation of the ozone standard after exceeding the standard four times in 2018. Each of the build alternatives would significantly increase the vehicle miles traveled. (DEIS at 2-29), and vehicles are the most significant source of pollutants that contribute to ozone formation.

The DEIS should have given more attention to Saguaro National Park as a Class 1 Area and the special air quality protections under Section 162(a) of the federal Clean Air Act. Unfortunately, it also neglected to adequately consider those impacts, which are also difficult to mitigate.

The Recommended Alternative will not advance Environmental Justice

---

The DEIS does not adequately address environmental justice. It fails to recognize the disparate impact of the detrimental impacts on air quality of the build alternatives and specifically the Recommended Alternative on communities of color and low-income communities.

Communities of color have especially high asthma rates. African-American and Hispanic children visit emergency departments for asthma care more often than white children. Black Americans are 2 to 3 times more likely to die from asthma than any other racial or ethnic group. One in five Hispanic adults can’t afford their asthma medicines, and adults who didn’t finish high school are more likely to have asthma than adults who graduate high school or college. Asthma is exacerbated and triggered by pollutants associated with freeways, including particulates and those that will contribute to the formation of ozone.

The disparate impacts associated with climate change are also significant. Researchers at the University of Arizona “... found that the southwestern region is a hotspot both for physical climate change and for social vulnerability with a clear ‘climate gap’ between rich and poor. The Southwest is projected to become hotter and drier under future climate change, creating the potential for heightened vulnerability and increasing challenges to achieve [Environmental Justice]. The Southwest exhibits high social vulnerability, with rankings among the worst in the USA on a range of indicators, including poverty, health insurance, energy and food security, and childhood well-being.”

The Recommended Alternative Will Exacerbate Urban Sprawl

The Recommended Alternative will result in more development in currently undeveloped lands, promoting more urban sprawl and the negative impacts associated with it, including those outlined above. Routing the corridor in this area would itself cause irreparable damage to environmental resources; the subsequent growth spurred in these areas would further facilitate environmental destruction and degradation. Any time a new road is constructed in undisturbed areas, it causes direct wildlife mortality, fragments wildlife habitat, causes or exacerbates air and water pollution, and much more.

Impacts to At-Risk Species

The DEIS fails to fully analyze the impacts to native plant and animal species present in the project area, especially those classified as federally “endangered” or “threatened,” by the state of Arizona as a “species of concern,” and by Pima County as “vulnerable” under the Sonoran Desert Conservation Plan as outlined in comments by the Coalition for Sonoran Desert Protection et al.

Impacts to Specific Areas

The discussion below addresses some of the areas that will especially be affected by the Recommended Alternative. This is by no means a complete list.

South Section

For detailed comments on the impacts to this area, please see the comments submitted by the Coalition for Sonoran Desert Protection and our previous scoping comments. There are a couple of issues we want to highlight, however.

---

The Recommended Alternative would traverse the sensitive Avra Valley. Pima County’s Sonoran Desert Conservation Plan (a multi-species habitat conservation plan [HCP] agreed to with U.S. Fish and Wildlife Service) requires that habitat values be protected in this area to off-set developments that occur in other areas. A freeway and associated developments would destroy these values and put the HCP in jeopardy. Avra Valley contains Critical Landscape Connections, Important Riparian Areas, Special Species Management Areas, Multiple Use Management Areas, and Agricultural In-Holdings. All of these would be compromised, if not destroyed, if a freeway were built here. Furthermore, this route threatens Saguaro National Park, the Arizona-Sonora Desert Museum, and Tucson Mountain Park, including the Central Arizona Project (CAP) Wildlife Mitigation Corridor, which was protected as mitigation for the CAP canal decades ago. A freeway adjacent to these places would destroy their recognized values and have significant negative direct, indirect, and cumulative impacts on the resources they protect.

Central Section

Pinal County has a variety of state parks, designated wilderness areas, and national monuments that could be affected by this Recommended Alternative. This includes Ironwood Forest National Monument, portions of Sonoran Desert National Monument, Picacho Peak, and other protected areas. The two national monuments and their associated designated wilderness areas support abundant wildlife, including several sensitive species, cultural resources, and recreation opportunities. The Recommended Alternative and increased traffic are incompatible with the purposes of these monuments. FHWA and ADOT must carefully consider the direct, indirect, and cumulative impacts to these protected areas.

Sierra Club is concerned about the negative impacts of the Recommended Alternative on Picacho Peak State Park and strongly opposes any new highway alignments in the Picacho Peak area. The construction of a major transportation route west of the Picacho Peak State Park would be detrimental to the park and its visitors and would isolate this little gem from any connectivity to surrounding lands.

The state park is known for its unique geological significance, outstanding and varied desert plants and animals, and its historical importance. The hike/climb to the summit of this prominent landmark is a special accomplishment for all who undertake it. While climbing up the east side of the mountain, one hears the constant hum of truck and car traffic on I-10 and the occasional rattling and whistling of trains. It is impossible to ignore the sound, and the noise reduces the quality of this trek through protected desert. But once the trail crosses the saddle, the west side of Picacho Peak is quiet. A hiker can hear the birds, the wind through the cactus spines, and the natural quiet of the desert. Building a new freeway to the west of the state park (Option F) would destroy this ambiance. It would isolate the state park from all surrounding landscapes making it an island – biologically and culturally. There would be no place to escape the noise and influence of civilization in this formerly tranquil park.

Furthermore, this alternative route is not needed and would be an unnecessary expense. The eastern route (I-10, purple and green alternatives) is currently being upgraded to three lanes in each direction. Miles of new freeway construction west of Picacho Peak is simply unnecessary and ill-advised.

North Section

The Recommended Alternative for the proposed I-11 freeway in the Phoenix area is not justifiable and will have significant negative impacts on the people, plants and animals of the region.

Maricopa County includes several regional parks, national monuments, and other public lands, wilderness areas, and protected lands that could be affected by this proposed corridor. Special consideration should be given to the Hassayampa River and other riparian and flood-prone areas relative to environmental impacts, as well as public safety. The Juan Bautista de Anza National Historic Trail runs through portions of Maricopa County and could be affected by this proposed corridor. Special consideration and avoidance of parks and wildlands is necessary, and impacts should be thoroughly evaluated, including to Buckeye Hills, White Tanks, and Estrella Mountain regional parks; Sonoran Desert National Monument; Sierra Estrella Wilderness; North and South Maricopa Wilderness, and others. This route will promote urban sprawl in Rainbow Valley and exacerbate the air quality problems for an area already plagued with high ozone and particulate concentrations.

The Recommended Alternative remains the most intrusive route in the Vulture Mountain Recreation Area (VMRA) located near Wickenburg, as the alignment appears to cut off about a quarter of the western end of this regional park. The park’s upper Sonoran Desert remains relatively pristine despite past impacts from mining and other uses and continues to hold much biological diversity and natural beauty. According to the 2012 Master Plan for the VMRA, the park is home to many species of wildlife including black tailed rattlesnakes, desert tortoise, Gila monsters, mule deer, javelina, mountain lion, and kit fox. In addition, the park contains an Area of Critical Environmental Concern (ACEC) to help protect several raptor species that utilize the cliffs of the Vulture Mountains. This past year, about 1,000 acres of the eastern part of the park was conveyed to Maricopa County under the Recreation and Public Purposes Act in part to provide additional protection to the perennial Hassayampa River and nearby corridor. The bulk of the park, about 70,000 acres, continues to be jointly managed by the Bureau of Land Management and the County.

Construction of I-11 through the park has further implications. If built, another plan exists for an extension of H 74 in the Morristown area westward across the Hassayampa through the southern part of the park and then connecting with I – 11. Dubbed the Lake Pleasant Freeway, such a scenario would have an end result of riddling the park with freeways, cutting it into sections and greatly blocking wildlife movement and degrading its scenic qualities. This is a significant cumulative and unmitigable impact.

Much time and effort has gone into the creation of this park; its primary purpose is to protect open space and scenic values for recreation. If I-11 is built as proposed, these values would be greatly impaired.

Interstate 11 would cross the Gila River near the community of Liberty, about midway between the Tres Rios Recreation Area and Robbins Butte Wildlife Area. There are remarkable birding and wildlife populations downstream of the 91st Ave. water treatment plant west to Tres Rios. Despite some urbanization, this Salt/Gila segment downstream to Robbins Butte remains a flyway and corridor for wildlife, and should not be unnecessarily interrupted by a busy freeway like I – 11.

The proposed route, once north of the proposed park, would curve to the east side of Black Mountain, bringing the freeway close to Wickenburg Airport where it would eventually join up with US 93. In addition to degrading and fragmenting a large BLM area, the freeway would encourage urban sprawl on the State Trust Lands to the west and north of the county park.
A Rail Only Alternative Should Have Been Analyzed
Sierra Club has long supported a passenger rail line connecting Tucson to Phoenix with stations at key points in between. Such a line could be expanded to other communities along a route tracking the I-10 corridor. A high-capacity passenger rail line is essential for relieving congestion on highways and getting people to their destinations. Such a rail system can also help protect public health, benefit our economy, enhance the human environment, and reduce negative environmental effects by decreasing transportation-related pollution and energy use and by reducing the need to build additional roadways and other infrastructure.

Regarding passenger transport, ADOT’s own studies (i.e., passenger rail study) have found passenger rail from Phoenix through Tucson to Nogales in existing rail corridors to be viable. Passenger rail enjoys healthy success in California, Utah, and the Pacific Northwest, and there is no reason to believe it would not succeed in Arizona. In these times of global climate change, rail must be our transportation future – the sooner we begin developing it, the better.

By locating a rail line in an already-developed area, such as along the I-10 corridor, which is already fragmented by the freeway, the needs of I-11 could be met while providing opportunities for safer and more efficient travel. A thorough EIS and evaluation of alternatives is needed to determine the full impacts, however. I-10 is the most commonly traveled route between Tucson and Phoenix and is used by travelers from most of the Phoenix area. Similarly, this route would provide a more direct connection between the Phoenix and Tucson population centers. Following the route that is most commonly traveled could promote ridership as the rail would act as both an introduction and a reminder to users of I-10 that alternative transportation options are available. It also provides more of what is needed to make this successful – mass transit on each end of the line. There is still work to do in these communities, but Tucson and Phoenix have the most developed transit. By placing the rail line through more remote areas, including areas that are not as heavily traveled or through a new corridor, ridership may not be as high. Similarly, by concentrating on areas that are already disturbed, such as along existing freeways or rail lines, damage to environmental resources could be greatly diminished and less infrastructure may be needed.

The DEIS is dismissive of considering rail, inferring that it is already handled. “The Selected Corridor Alternative would parallel I-10 to Eloy and then divert north, entering Phoenix from the east (ADOT 2016). With local and regional transit systems in place within the Study Area, additional passenger rail capacity is not warranted at this time.” (DEIS at 2-11) That is just not true. Additional passenger rail is warranted and needs to be funded. We ask that ADOT drop this I-11 proposal and concentrate on the needed rail between Phoenix and Tucson.

Summary
Thank you again for the opportunity to provide comments on the DEIS developed for this project. FHWA and ADOT appear to be stuck in the past with transportation planning. Sierra Club encourages you to look forward and move beyond outdated transportation solutions that destroy habitat, harm communities, and continue to give us unhealthy air quality. FHWA and ADOT must seriously consider whether this project is necessary and appropriate or whether it is being pushed forward based on outdated and inaccurate data and needs. Negative impacts to our state’s diverse natural resources are unavoidable with a project of this magnitude, and mitigation efforts will not adequately offset the direct, indirect, and cumulative negative effects. We expected a thorough analysis of the impacts and a hard look at the full range of reasonable alternatives, including those
that do not envision a freeway and its associated infrastructure. Unfortunately, FHWA and ADOT
did not provide that. We encourage you to withdraw this proposal and go back and evaluate non-
freeway alternatives.

FHWA and ADOT should break with tradition and offer fresh alternatives that focus on some of the real
issues facing the 21st century such as retention of large important open space areas and reduction of
fossil fuel consumption to improve air quality and limit climate change. To this end, I-11 is a
monumental distraction, encouraging the very things we need to put to rest. We recommend that FHWA,
ADOT, and their partners instead study other methods—rail options—of moving people and freight
from Nogales north across Arizona to our neighboring states.

Sincerely,

Sandy Bahr
Chapter Director
Sierra Club – Grand Canyon Chapter