



**DESERT TORTOISE COUNCIL**

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**Via email to**

**NPS Transportation Safety Program Manager [wayne\\_emington@nps.gov](mailto:wayne_emington@nps.gov)  
who will deliver the letter to the Department of Transportation**

June 15, 2023

The Honorable Pete Buttigieg  
Secretary of Transportation  
U.S. Department of Transportation  
1200 New Jersey Avenue, SE  
Washington, DC 20590

RE: Letter of Support for the Desert Tortoise Safe Crossing and Habitat Connectivity Project at Mojave National Preserve

Dear Mr. Secretary:

The Desert Tortoise Council (Council) is a non-profit organization comprised of hundreds of professionals and laypersons who share a common concern for wild desert tortoises and a commitment to advancing the public's understanding of desert tortoise species. Established in 1975 to promote conservation of tortoises in the deserts of the southwestern United States and Mexico, the Council routinely provides information and other forms of assistance to individuals, organizations, and regulatory agencies on matters potentially affecting desert tortoises within their geographic ranges.

The Mojave desert tortoise (*Gopherus agassizii*) (synonymous with Agassiz's desert tortoise) is among the top 50 species on the list of the world's most endangered tortoises and freshwater turtles. The International Union for Conservation of Nature's (IUCN) Species Survival Commission, Tortoise and Freshwater Turtle Specialist Group, now considers the Mojave desert tortoise to be Critically Endangered (Berry et al. 2021), "... based on population reduction (decreasing density), habitat loss of over 80% over three generations (90 years), including past reductions and predicted future declines, as well as the effects of disease (upper respiratory tract disease/mycoplasmosis). *Gopherus agassizii* (sensu stricto) comprises tortoises in the most well-studied 30% of the larger range; this portion of the original range has seen the most human impacts

and is where the largest past population losses had been documented. A recent rigorous rangewide population reassessment of *G. agassizii* (sensu stricto) has demonstrated continued adult population and density declines of about 90% over three generations (two in the past and one ongoing) in four of the five *G. agassizii* recovery units and inadequate recruitment with decreasing percentages of juveniles in all five recovery units.” It is one of three turtle and tortoise species in the United States to be critically endangered.

This status, in part, prompted the Council to join Defenders of Wildlife and Desert Tortoise Preserve Committee (Desert Tortoise Council 2020) to petition the California Fish and Game Commission in March 2020 to elevate the listing of the Mojave desert tortoise from threatened to endangered in California.

The Desert Tortoise Council enthusiastically supports the National Park Service (NPS) submission of the *Desert Tortoise Safe Crossing and Habitat Connectivity Project (Project)*, to the first ever Wildlife Crossings Pilot Program (WCPP) grant opportunity.

The Project changes the primary travel corridor at Mojave National Preserve (MOJA) to improve safety for wildlife and for people driving through the Preserve. By returning Morning Star Mine Road to a slower, less traveled gravel roadway, and diverting traffic to redundant, subparallel, and safer Cima Road, the Project will reconnect high suitability habitat for the federally threatened Agassiz’s or Mojave desert tortoise (*Gopherus agassizii*) and reduce vehicular tortoise mortality.

The Project demonstrates how transportation projects can improve habitat connectivity. Morning Star Mine Road (the project location) passes through some of the highest-quality habitat in the Preserve. A depressed Mojave desert tortoise population has been documented within at least 1300 feet of Morning Star Mine Road through total tortoise sign surveys (scat, tracks, pellets, burrows, and live and dead individuals). Evaluative monitoring in partnership with the [Ivanpah Desert Tortoise Research Facility](#) will demonstrate reductions in road mortality, showing how the population of this long lived species begins to recover as habitat is reconnected.

The Project demonstrates how transportation projects can reduce wildlife collisions, improving safety for wildlife and for people driving. At MOJA, Mojave desert tortoises are crushed by cars at a rate that could lead to local extirpation (10 per year). Even moderate downward fluctuations in adult survival rates, such as mortality from roads, can result in rapid population declines. By returning Morning Star Mine Road to a slower, less traveled gravel roadway and by diverting traffic to the redundant, subparallel, and safer Cima Road, this project will prevent and reduce wildlife vehicle collisions using three mitigation methods to from the 2008 Wildlife-Vehicle Collision Reduction Study: Report to Congress:

- [Avoidance of Key Habitat: Alternative Alignment](#)
- [Reduce Traffic Volume On Road Network](#)
- [Reduce Vehicle Speed By Traffic Calming/Reducing Design Speed](#)

This Project also makes fatal and injury roadway departure crashes less likely for people driving through the Preserve. Morning Star Mine Road is currently the primary north south route, the

highest volume traffic movement through the Preserve, and has the highest percentage of traffic travelling at speeds in excess of 70 mph. In conjunction with the currently underway \$30M Cima Road safety improvement project, this Project will redirect traffic to redundant, subparallel, and safer Cima Road. The Cima Road project projects a 38% reduction in fatal and injury crashes with a transition from an existing 22-foot section with 10-foot-wide lanes and 1-foot shoulders to a 26-foot cross section with 11-foot-wide lanes and 2-foot shoulders and rumble strips. Additionally, unaccounted for in the 38% reduction calculations above, the Cima Road project includes Manual on Uniform Traffic Control (MUTCD) compliant signs for enhanced curve delineation, wider 6-inch pavement markings, safety edge, and strategically located pullouts to better accommodate traffic enforcement operations.

The Project demonstrates how transportation projects can benefit species listed under the Endangered Species Act (ESA). As previously mentioned, the Mojave desert tortoise is federally-listed as threatened under the ESA and listed as threatened by the State of California under the California Endangered Species Act (CESA). The species is native to the Mojave Desert, contributing to the unrivaled scenic, geologic, and unique natural landscapes and diverse ecosystems which MOJA was established to protect, preserve, and perpetuate in their natural state under the California Desert Protection Act. In addition, it is an indicator species and umbrella species of ecosystem health (Berry and Medica 1995). Indicator species are used to monitor environmental changes – especially those due to human impacts, assess the efficacy of management, and provide warning signals for impending ecological shifts. An umbrella species is a species whose conservation is expected to confer protections to a large number of co-occurring species.

The life history strategy of the Mojave desert tortoise is to take a long time to reach sexual maturity (13 to 20 years – Mueller et al. 1998), have a low reproduction rate (only an average of 4.5 eggs per clutch – Turner et al. 1986, with high rates of clutch failure – Germano 1994) and a low recruitment rate (few young survive to sexual maturity – Wilbur and Morin 1988, Turner et al. 1987), and have a large lifetime home range. During its lifetime, each desert tortoise may use more than 1.5 square miles (3.9 square kilometers) of habitat and may make periodic forays of more than 7 miles (11 kilometers) at a time (Berry 1986a) and travel up to 0.6 mile (1 kilometer) a day (Berry 1986b). In addition, tortoises have demonstrated homing behavior when moved up to 1.3 miles (2 kilometers) from their home range (Hinderle et al. 2015).

Because of this life history strategy, even moderate downward fluctuations in adult survival rates, such as mortality from roads, can result in rapid population declines. Thus, high survivorship of adult desert tortoises is critical to the species' persistence. Because of its large lifetime home ranges, the tortoise requires large areas of connected habitat that are free from sources of mortality such as vehicle collisions if it is to survive and persist. These factors make recovery of the species difficult.

The Project directly contributes to Recovery Action 2.5 “Restrict, designate, close, and fence roads,” in the U.S. Fish and Wildlife Service’s (2011) Revised Mojave Desert Tortoise Recovery, which states *”Paved highways, unpaved and paved roads, trails, and tracks have significant impacts on desert tortoise populations and habitat. In addition to providing many opportunities for accidental mortality, they also provide access to remote areas for collectors, vandals,*

*poachers, and people who do not follow vehicle-use regulations. Substantial numbers of desert tortoises are killed on paved roads. Roads also fragment habitat and facilitate invasion of non-native vegetation.”*

We remind the Department of Transportation that section 7(a)(1) of the ESA states that all federal agencies “...shall... utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to Section 4 of this Act.” In Section 3 of the ESA, “conserve,” “conserving,” and “conservation” mean “to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary. Thus, the Department of Transportation’s funding of this Project would demonstrate its compliance with section 7(a)(1) of the ESA, as it is a Project that would substantially reduce a threat to the tortoise that is identified in the Recovery Plan (USFWS 2011), thereby contributing to the conservation of the tortoise.

The Project will prevent and reduce wildlife vehicle collisions using three mitigation methods to from the 2008 Wildlife-Vehicle Collision Reduction Study: Report to Congress. The report states that one such strategy, [Avoidance of Key Habitat: Alternative Alignment](#), has been modeled and employed, but not well monitored or researched. This Project provides an opportunity to more comprehensively monitor and evaluate the effectiveness of this specific strategy, potentially informing an update of the 2008 Wildlife-Vehicle Collision Reduction Study: Report to Congress.

The Project creates educational and interpretative opportunities for both in person and virtual visitors to MOJA. The NPS uses interpretive programs to connect people to their parks, with opportunities for all visitors to form their own intellectual, emotional, and physical connections to the meanings and values found in the parks’ stories. In addition to in person and [virtual](#) educational programming related to the Mojave [desert tortoise](#), the Project will be supported by an enhanced traffic safety and enforcement educational outreach program as a part of the “[Drive like a Tortoise](#)” traffic safety campaign. This contributes to Recovery Action 2.3. “Establish/continue environmental education programs.”

The Project supports local economic development and leverages Federal investment. The NPS is committed to meeting the 20% non-federal program match requirement. In 2021, the 866,635 visitors to MOJA spent \$56.4 million in communities near the park. That spending supported 644 jobs, \$27.4 million in labor income, \$45.4 million in value added, and \$73.8 million in economic output in local gateway economies.

The Project also meets priority considerations of the Administration from the [White House Council on Environmental Quality Guidance for Federal Departments and Agencies on Ecological Connectivity and Wildlife Corridors](#) such as:

- Applying ecosystem-based conservation, enhancement, protection, and restoration strategies, including using nature-based solutions
- Designing infrastructure to facilitate wildlife movement, ecosystem processes, and ecosystem services
- Restoring habitat to promote native ecological communities

- Rehabilitating habitat damaged by natural or human impacts to facilitate continued connectivity
- Producing science, data, and tools on connectivity through research, collaborations, and partnerships that are readily applicable to land, water, ocean, and resource management
- Using criteria related to connectivity and corridors to inform decisions related to budgeting, project selection, or grant eligibility

Please contact me at [eac@deserttortoise.org](mailto:eac@deserttortoise.org) if you would like more information regarding the Desert Tortoise Council's support of the *Desert Tortoise Safe Crossing and Habitat Connectivity Project*.

We ask that you respond in an email that you have received this letter of support so we have confirmation that our support has been registered with the appropriate personnel and office for this Project.

Respectfully,



Edward L. LaRue, Jr., M.S.  
Desert Tortoise Council, Ecosystems Advisory Committee, Chairperson

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