



**DESERT TORTOISE COUNCIL**

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**Via email only**

28 January 2022

California Natural Resources Agency  
715 P Street  
Sacramento, CA 95814  
Email: [Californianature@resources.ca.gov](mailto:Californianature@resources.ca.gov)

RE: Pathways to 30 x 30 California: Accelerating Conservation of California's Nature

Dear California Natural Resources Agency,

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.

We appreciate this opportunity to provide comments on the above-referenced project. Given our mission statement, "The mission of the Desert Tortoise Council is to assure the perpetual survival of viable populations of desert tortoises throughout their historical ranges. We focus our efforts on the tortoise species complex that occurs in the southwestern United States and northwestern Mexico, currently recognized as *Gopherus agassizii*, *Gopherus morafkai*, and *Gopherus evgoodei*," we necessarily restrict our comments to protection of tortoise species in desert habitats and given this initiative, to habitats in California occupied by *G. agassizii* (Mojave desert tortoise). We appreciate that this initiative is in its infancy and you are soliciting input from potential stakeholders until mid-February 2022. Our reading of the information available at this website (<https://www.californianature.ca.gov/pages/30x30>) is favorable for the most part. We see that goals and objectives are introduced in a generalized manner and hope that you will seek the Council's involvement in specific planning discussions.

Mojave desert tortoise is now on the list of the world's most endangered tortoises and freshwater turtles. It is in the top 50 species. The International Union for Conservation of Nature's (IUCN) Species Survival Commission, Tortoise and Freshwater Turtle Specialist Group, now considers Mojave desert tortoise to be Critically Endangered (Berry *et al.* 2021). As such, it is a "species that possess[es] an extremely high risk of extinction as a result of rapid population declines of 80 to more than 90 percent over the previous 10 years (or three generations), a current population size of fewer than 50 individuals, or other factors." It is one of three turtle and tortoise species in the United States to be critically endangered.

The Council joined two other organizations in 2020 to petition the California Fish and Game Commission to change the listing of the tortoise from threatened to endangered because of the substantial decline in the number and density of the tortoise in California (Allison and McLuckie 2018), and the loss, degradation, and fragmentation of large areas of tortoise habitat, primarily from human activities. Barring additional delays (the original determination was postponed in October 2021), we expect the determination to be made in April 2022.

Information provided at the website referenced above summarizes the effort as follows: "In October 2020, Governor Newsom issued the Nature-Based Solutions Executive Order N-82-20, advancing biodiversity conservation as an administration priority and elevating the role of nature in the fight against climate change. As part of this Executive Order, California committed to the goal of conserving 30% of our lands and coastal waters by 2030."

Therein, the *Key Objectives* are given as: (1) Protect California's unique biodiversity; (2) Expand equitable access to nature and its benefits; and (3) Conserve places that help California achieve carbon neutrality and/or build climate resilience. *Conservation Priorities* are given as (1) Execute Strategic Land Acquisitions; (2) Increase Voluntary Conservation Easements; (3) Enhance Conservation of Existing Public Lands and Coastal Waters; (4) Accelerate Regionally Led Conservation; (5) Institutionalize Advance Mitigation; (6) Expand and Accelerate Environmental Restoration; (7) Strengthen Coordination Among Governments and Key Partners; (8) Align Investments to Maximize Conservation Benefits; and (9) Evaluate Conservation Outcomes and Adaptively Manage.

The Council supports these Key Objectives and Priorities and agrees that if implemented quickly and properly, they will advance biodiversity and provide defense against climate change. However, they must be implemented with conservation of nature as the goal and should use the latest scientific data, implement the scientific process, and include effective enforcement, science-based monitoring, and science-based adaptive management.

The Mojave desert tortoise is a *Keystone, Umbrella, Indicator, and Flagship Species* (Kohn 2018). *Keystone species* are those that are ecologically necessary to the healthy functioning of a given ecosystem (Caro 2010). In the Mojave and Colorado subdivision of the Sonoran Deserts in southern California, the tortoise provides burrows that are utilized by numerous other animals for their survival. *Umbrella species* are species that "cover sufficient home ranges of individuals of other species so that these too will have viable populations." In other words, if we are conserving species with large home ranges such as the tortoise (e.g., lifetime home range exceeds several square miles), we are by default conserving species with smaller home ranges.

*Indicator species* are those that demonstrate “how anthropogenic disturbance has perturbed individual health or behavior, or has affected populations, or communities.” Some indicator species such as the tortoise, signal a change in habitat quality (e.g., invasive annual plant species, increased fire frequency and size, increase in abundance of predators, etc.) due to human impacts. They are like an early warning system because they are more sensitive to environmental disturbance and change. *Flagship species* are those that “are used to promote public understanding of conservation problems and to raise money” to achieve conservation goals (Caro 2010). The Mojave desert tortoise is an excellent species to use to increase the public’s understanding of the fragile nature of the California desert and the need to conserve it. We believe that if the Mojave desert tortoise is conserved in the wild, it will be an indicator of the success of protecting California’s unique biodiversity in the deserts of southern California.

With regards to the discussion on page 14, entitled “Expand Access to Nature,” we are overly concerned how this Key Objective may be pursued. Specifically, we ask that this not be another opportunity for promoting off highway vehicle (OHV)-based recreation in desert tortoise habitats including habitats needed for connectivity between tortoise habitats/populations for genetic diversity and population viability.

We submit for the public record the footnoted list of 148 references that clearly demonstrate the adverse direct, indirect, and cumulative impacts of OHV use on desert tortoise habitats<sup>1</sup>. Because the tortoise is a keystone, umbrella, and indicator species, the uncontrolled use of OHVs in the California deserts is also adversely affecting other species of flora and fauna in the deserts of California and threatening its unique biodiversity.

In California, much of the distribution of the tortoise including its habitat and crucial linkage habitat among populations occurs on public lands managed by the Bureau of Land Management (BLM). In the last five years, alone, particularly with the Desert Renewable Energy Conservation Plan (DRECP; BLM 2016), BLM designated thousands of acres of desert tortoise critical habitat (USFWS 1994a) as Special Recreation Management Areas (SRMAs) and Extensive Recreation Management Areas (ERMAs). Since the 2016 designation of SRMAs, three different BLM -designated vehicle open areas have been expanded into U.S. Fish and Wildlife Service (USFWS) -designated critical habitat, likely compromising the persistence of tortoises and protection of habitats in those ostensibly protected habitats and adjacent areas because of indirect impacts. The DRECP also removed the Desert Wildlife Management Area (DWMA) designation, initially identified in the first recovery plan (USFWS 1994b), and replaced the DWMA acreages with National Conservation Lands (NCL), which are a fraction of the DWMA acreage.

The West Mojave Route Network Project (BLM 2006, 2018) is another planning exercise that resulted in significant recreation-centric infrastructure and use of unauthorized OHV routes that were created because BLM is unable to enforce its OHV designated routes and require offenders to restore degraded and destroyed desert habitats. BLM’s approval of more than 10,000 linear miles of open routes throughout the West Mojave desert in southern California, many of which did not exist before 1980, will continue to adversely affect tortoises and tortoise critical habitat.

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<sup>1</sup> <https://www.dropbox.com/s/vcfxz7qs5bo0w2m/%23Road%20Impacts%20Bibliography.pdf?dl=0>

Several years ago (BLM 2019), the BLM provided land use designations that will accommodate competitive vehicle events in critical habitats, which have not been allowed since the Barstow-to-Vegas race was prohibited in the late 1980s. The same environmental document (BLM 2019) provided for unrestricted vehicle use on two dry lakebeds that are surrounded by critical habitat, choosing to ignore the Council's concerns that adjacent suitable tortoise habitats will be adversely affected by these new *de facto* vehicle open areas. Despite thousands of acres of occupied tortoise habitat being directly and indirectly affected since the tortoise was listed in 1989, only a fraction of this acreage has been compensated for under the California Endangered Species Act.

Conserving places that help California achieve carbon neutrality and/or build climate resilience is one of the three objectives of this initiative. However, California continues to support locating solar energy development in native vegetation associations in the Mojave Desert and Colorado division of the Sonoran Desert. This location results in the destruction of tens of thousands of acres of native vegetation and puts energy production (supply) far from the locations that demand its use (i.e., human development along and near the coast).

Studies around the world have shown that desert ecosystems function as important carbon sinks. For example, the California deserts account for nearly 10 percent of the state's carbon sequestration – below ground in soil and root systems, and above ground in biomass. Protecting this biome can contribute to securing carbon stores in the state (MDLT 2021) and contribute to carbon neutrality. But destroying desert vegetation on a large scale to construct solar energy projects removes this sequestered carbon now and eliminates sequestration in the future. Solar energy development should be located on existing hardscape areas; it should not be destroying plants that daily sequester carbon. Production of solar energy should be located close to or within the area of high energy demand. We strongly recommend that this initiative supports a major shift in California's support of solar energy development; it should protect the vegetation communities in the California deserts that sequester carbon, locate solar energy development in and near urban areas with no loss of vegetation, preferably as rooftop solar.

Similarly, with regards to the discussion under the heading, "Sustaining Our Economic Prosperity, Clean Energy Resources, and Food Supply," on page 21, and despite the allowance by the DRECP for the development of 8,000 acres± of critical habitat in then newly-designated Development Focus Areas (DFAs), please be sure that this initiative does not facilitate development of solar and wind power facilities in tortoise critical habitats, which are defined as "essential habitats" for the survival and recovery of the tortoise (USFWS 1994a).

With regards to the sixth Conservation Priority, "Expand and Accelerate Environmental Restoration," we provide for the public record a recent, peer-reviewed journal article that outlines methods and includes an extensive reference list for successful restoration of desert habitats (Abella and Berry 2016<sup>2</sup>).

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<sup>2</sup> <https://www.dropbox.com/s/nx1b5m2b5ehya12/%23Abella%20and%20Berry%202016.pdf?dl=0>

Under the seventh priority, “Strengthen Coordination Among Governments and Key Partners,” we note the permitted development of tortoise habitat in the Mojave and Colorado deserts of California with limited coordination with the Resources Agencies, specifically California Department of Fish and Wildlife (CDFW), by county permitting agencies prior to issuing permits for actions that would result in take of the Mojave desert tortoise, which is an action prohibited by the California Endangered Species Act unless authorized by CDFW through permit issuance that fully mitigates the impacts of the proposed taking.

Current management needs to be improved substantially and quickly if the state wants to achieve their three objectives before it is too late for the tortoise and other species in California, which contribute significantly to California’s biodiversity.

These are just a few of the concerns and resources the Desert Tortoise Council herein identifies as your program is developed. Herein, we ask that the Desert Tortoise Council be identified as an Affected Interest for this project. Please let us know how we can continue to be involved and to help. Please include us on your distribution list for future planning efforts.

Respectfully,



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