



August 14, 2020

Mr. Eric Sklar, President
California Fish and Game Commission
1416 Ninth Street, Suite 1320
Sacramento, CA 95814

Submitted via email to fgc@fgc.ca.gov

RE: Agenda Item 25: Petition to list Western Joshua Trees as threatened under the California Endangered Species Act – support advancement to candidacy

Dear President Sklar and Commissioners:

Thank you for the opportunity to provide comments on the petition to list western Joshua trees as threatened under the California Endangered Species Act (CESA).

The undersigned organizations, which represent hundreds of thousands of supporters throughout California, strongly support the recommendation of the California Department of Fish and Wildlife that listing of western Joshua trees may be warranted. We urge the Commission to initiate a full status review and advance western Joshua trees to candidacy.

Our state's western Joshua trees are being profoundly impacted by human activity, most directly from climate change and habitat loss, but also from wildfire, drought and invasive species, each of which are exacerbated by climate change. Protections under CESA would greatly help western Joshua trees from direct habitat loss as well as foster recovery actions by the California Department of Fish and Wildlife and other state and local agencies. These protections are necessary to ensure that this iconic species continues to inhabit these landscapes and inspire future generations.

While much of the western Joshua tree's range is on public lands, about 40% of its California range is on

private land, of which only a tiny fraction is protected from development. Outside of Joshua Tree National Park, areas of federal land that are home to the species are subject to poorly regulated activities including off-road vehicle use, cattle grazing, power and pipeline rights-of-way and large-scale energy projects that consume or degrade habitat.

The Joshua tree's ability to colonize new habitat at higher elevations or latitudes is extremely limited and no such range expansion is yet occurring, even as the lower elevation and southern edge of its range is already contracting in the face of a warming climate. The convergence of factors necessary for recruitment results in successful establishment of new Joshua tree seedlings only a few times a century. Such recruitment has already largely stopped at the drier, lower limits of the species' range.

In this context, climate change represents an existential threat to western Joshua trees. The western Joshua tree in California will lose upwards of 90% of its range under likely climate scenarios. There is no safe refuge for western Joshua trees, as the higher elevation areas in which Joshua trees are projected to best be able to survive increasing temperatures and drying conditions are at great risk of fire due to the prevalence of invasive non-native grasses. Prolonged droughts, which are projected to occur with greater frequency and intensity over the coming decades, will not only preclude recruitment across ever-greater areas of the species' range, but will lead to higher adult mortality, either directly due to temperature and moisture stress or indirectly due to increased herbivory from hungry rodents lacking alternative forage. Whether or not the western Joshua tree's pollinating moth will be able to keep pace with a changing climate is also uncertain. Absent the pollinating moth, Joshua trees will not be able to produce seeds, meaning there will be no juvenile trees to replace older trees as they die off.

Additionally, the western Joshua tree is further threatened by direct habitat loss. Development has already consumed vast swaths of habitat in the range of the western Joshua tree. Over the coming decades, over a million additional acres are projected to be destroyed or degraded from development. This large-scale loss or severe degradation of habitat would be of conservation concern for the species even absent the threats posed by climate change. When added to climate change, such loss of habitat and the genetic resiliency and connectivity it provides will further push the species towards extinction in California.

Absent rapid and substantial reductions in greenhouse gas emissions and protection of habitat, the western Joshua tree will likely be extirpated from all or most of California by the end of the century. It therefore clearly meets the definition of a "threatened species" under state law and must be protected as such.

While the threats facing the western Joshua tree in the coming decades are dire, they are not insurmountable. If the species and its habitat are protected early, and with active management to enhance recruitment and survival, and potentially dispersal, the western Joshua tree has a realistic chance of persisting in the wild over the coming decade. CESA listing, and the consequent development and implementation of a recovery plan and local or regional Natural Communities Conservation Plans (NCCPs), would help ensure the survival of this iconic species of the Mojave.

In light of the above, and on behalf of our numerous members, we strongly recommend the California Fish and Game Commission to vote to initiate a full status review and advance western Joshua trees to candidacy.

Sincerely,

Ileene Anderson
Senior Scientist/Public Lands Deserts Director
Center for Biological Diversity

Columba Quintero
Executive Director
Native American Land Conservancy

Shanna Edberg
Director of Conservation Programs
Hispanic Access Foundation

Brandon Dawson
Policy Advocate
Sierra Club California

Kate Hoit
California Director
Vet Voice Foundation

Tanya Henderson
Executive Director
Amargosa Conservancy

Larry Glass
Executive Director
Northcoast Environmental Center

Michael J. Painter
Coordinator
Californians for Western Wilderness

Wendy Schneider
Executive Director
Friends of The Inyo

Chris Clarke
Associate Director, California Desert Program
National Parks Conservation Association

Geary Hund
Executive Director
Mojave Desert Land Trust

Robert Parker
Conservation Chair
Kerncrest Audubon Society

Drew Feldmann
Conservation Chair
San Bernardino Valley Audubon Society

Pamela Flick
California Program Director
Defenders of Wildlife