



## Native Plant Society of New Mexico

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Matt Wunder  
Ecological and Environmental Planning Division  
New Mexico Department of Game and Fish  
P.O. Box 25112  
Santa Fe, NM 87504

Re: State Wildlife Action Plan Revision

Dear Dr. Wunder,

Thank you for this opportunity to comment on the revised SWAP document on behalf of the Native Plant Society of New Mexico. NPSNM is a non-profit with over 700 members in seven chapters located around the state and in El Paso, Texas. Our mission is to educate the public about native plants by promoting knowledge of plant identification, ecology, and uses; foster plant conservation and the preservation of natural habitats; support botanical research; and encourage the appropriate use of native plants to conserve water, land, and wildlife.

The Department of Game and Fish is to be commended on a revised document that substantially improves upon the previous Comprehensive Wildlife Conservation Strategy, in terms of organization and usability. In particular, devoting a separate chapter to climate change, and featuring climate change prominently throughout the document, gives this phenomenon its rightful recognition as a pervasive, statewide challenge for conservation efforts.

The SWAP draft is uneven in its treatment of the noxious weed salt cedar (*Tamarisk* spp.). For example, the tamarisk beetle (*Diorhabda* spp.) is mentioned only in the list of proposed conservation actions for the High Plains and Tablelands ecoregion, when in fact the beetles are now present along large rivers statewide (excepting a small portion of the middle Rio Grande, where they are expected to arrive soon). Conservation actions listed in the SWAP for several of the ecoregions include "Assess changes in availability of water to aquatic communities due to salt cedar control", with a citation to Paxton (2011). This paper is not included in the SWAP References section. If it is the article cited below<sup>1</sup>, that publication does not address water availability at all, but rather some habitat-related consequences of salt cedar removal. Studies conducted in the 1970s and 1980s by the USGS of water budgets pre- and post-tamarisk clearing along the Pecos and Gila Rivers suggest that measurable water salvage following tamarisk clearing is only 0-1.5 acre-feet/year, due to evapotranspiration of replacement vegetation, increased evaporation, loss to ground water, or other difficult-to-quantify "sinks" (USGS, 2006<sup>2</sup>). In fact, salt-cedar invasion and its reversal are complex issues in regards to riparian and aquatic habitat quality. The SWAP addresses these issues in a fragmented and inconsistent fashion. A full discussion of the current and likely near-future salt-cedar situation in New Mexico is highly warranted in this context, perhaps using the Paxton article as

a starting point. The Tamarisk Coalition (<http://www.tamariskcoalition.org/>) would be another valuable information source.

Although it is stated on page 41 that wind and solar energy currently impact a small area of habitat, it is worth noting that land-use intensity (area/ unit of energy) for photovoltaic solar is similar to that of petroleum development, while wind energy uses nearly twice the land (McDonald et al, 2009<sup>3</sup>). The discussion of weedy plants on page 52 should include a reference to the NM Department of Agriculture Noxious Weed List (<https://plants.usda.gov/java/noxious?rptType=State&statefips=35>), along with a clarification that problematic plants are not limited to listed noxious species. The following should be added to the list of ecoregion-specific Threats:

- Halogeton under Invasive and Problematic Species for the Colorado Plateau
- Potash mining under Mining and Energy for the Chihuahuan Desert
- Solar energy under Mining and Energy for the Chihuahuan Desert

On page 209, “Blue Lake” should probably read “Bluewater Lake”.

Thank you for the opportunity to comment on this important planning document. A botanical counterpart to the SWAP is forthcoming from the NM Energy, Minerals and Natural Resources Department, to be called the NM Rare Plant Conservation Strategy. It is our hope that the rare plant strategy and the SWAP, together, will provide guidance for many future projects intended to conserve our state’s incomparable biological resources.

Sincerely,



Rachel Jankowitz, Conservation Chair

Native Plant Society of New Mexico

<sup>1</sup>Eben H. Paxton, Tad C. Theimer, and Mark K. Sogge (2011) Tamarisk Biocontrol using Tamarisk Beetles: Potential Consequences for Riparian Birds in the Southwestern United States. *The Condor*: May 2011, Vol. 113, No. 2, pp. 255-265

<sup>2</sup>U.S. Geological Service. 2006. Tamarisk Control, Water Salvage, and Wildlife Habitat Restoration Along Rivers in the Western United States. Fact Sheet 2006-3071.

<sup>3</sup>Citation: McDonald RI, Fargione J, Kiesecker J, Miller WM, Powell J (2009) Energy Sprawl or Energy Efficiency: Climate Policy Impacts on Natural Habitat for the United States of America. *PLoS ONE* 4(8): e6802.