

Nevada Natural Heritage Program

Nevada Department of Conservation and Natural Resources

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MEMORANDUM

TO: Pete Anderson, State Forester, Nevada Division of Forestry
CC: Allen Biaggi, Director, DCNR
FROM: 2006 Nevada Rare Plant Workshop
THROUGH: James D. Morefield, Biologist III / Botanist, NNHP
DATE: 19 April 2007
SUBJECT: Recommendation to reconsider addition of one plant species to the list of fully protected species under NAC Chapter 527.010

Pursuant to NAC 527.200 subsections 1 and 3, the Nevada Rare Plant Workshop (NRPW) met on April 6, 2006, in Reno. This meeting was attended by 26 botanical experts and resource management professionals from Nevada and the Lake Tahoe area, who generously volunteered their time and expenses to participate. During this meeting the participants reached consensus that Las Vegas buckwheat, *Eriogonum corymbosum* var. *nilesii*, continues to merit full protection under NAC 527.010, and that the Nevada Division of Forestry should reconsider its decision of 4 January 2006 not to add Las Vegas buckwheat to the Nevada list of fully protected species. In reaching this consensus, the group noted the following factors:

1. **Geographic range:** The group had been aware of several new discoveries of Las Vegas buckwheat, outside and in addition to the recently documented population in Las Vegas Valley in the North Las Vegas area. These included populations in Coyote Springs Valley, Toquop Wash (Lincoln Co.), and about 52 acres in the Anniversary Mine drainage in the Muddy Mountains Wilderness area. Even considering recent and ongoing discoveries, however, the best data currently available indicate that 50-70% of the buckwheat's historical population and habitat area remains within Las Vegas Valley.
2. **Proportion and distribution of threats:** Based again on best available data, about 30-50% of the historical Las Vegas Valley populations (15-35% of the total range) are either known extirpated, or considered likely to be extirpated within the near future. Threats also exist for some of the newly discovered populations to the east. The Toquop Wash area is proposed for development of energy generation facilities. With projected large-scale residential development in Coyote Springs Valley, two of the 13 buckwheat patches recently discovered there will be lost, and the remainder will be subject to increased impacts from off-road vehicle use and other recreational activities in its relatively barren and accessible habitat immediately to the south and east. Without full protection, and the resulting ability to regulate such losses and threats, therefore, Nevada is at risk of losing a large proportion of Las Vegas buckwheat habitat and genetic diversity.

3. **Effectiveness of State protection as a conservation tool:** full protection under NRS 527 has proven highly effective in the ongoing conservation of other plant species in Nevada, including Las Vegas bearpoppy (*Arctomecon californica*), Steamboat buckwheat (*Eriogonum ovalifolium* var. *williamsiae*), sticky buckwheat (*Eriogonum viscidulum*), and threecorner milkvetch (*Astragalus geyeri* var. *triquetrus*). When compared with the geographic distribution and threats of these and other State-protected species, full protection is also likely to be highly effective in conserving the remaining populations of Las Vegas buckwheat.

4. **Taxonomic and genetic significance:** since its peer-reviewed scientific description in 2004, *Eriogonum corymbosum* var. *nilesii* has been accepted in the *Flora of North America* series (vol. 5, p. 258, 2005, Oxford University Press; also peer-reviewed) as a valid taxonomic variety, and no evidence to the contrary has been presented. The evidence presented in the original publication (consistent morphologic difference strongly correlated with geographic distribution) is generally accepted by botanists as sufficient justification for infraspecific taxa in relatively non-motile organisms such as vascular plants. In addition, on 15 August 2005 at the Botanical Society of America meetings in Austin, Texas, Mark W. Ellis and colleagues from Utah State University presented AFLP and chloroplast DNA evidence for genetic divergence in the Nevada populations of *Eriogonum corymbosum* consistent with their designation as a separate taxonomic variety. (See <http://www.2005.botanyconference.org/engine/search/index.php?func=detail&aid=307>).

In our advisory capacity pursuant to NAC 527.200 subsection 2, we concur with the accuracy and relevance of the above factors, and hereby forward the recommendations of the 2006 NRPW for your further consideration and action.
