

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: <i>Penstemon harringtonii</i> (Harrington Beardtongue)			
Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	A	<p><i>P. harringtonii</i> is a small beardtongue in the Figwort family and a CO endemic. It is restricted to 43 occurrences in Grand and Eagle counties in CO (S3). One reference indicates this plant is also found in Routt, Summit, Garfield, and Pitkin counties. This species is found in open sagebrush communities on moderate slopes. Soils are typically loams and clay loams derived from coarse, calcereous parent materials; it can also be found on limey shales, limestones, and other parent rocks. There are small populations scattered along the Eagle River Valley between Avon and Dotsero; along the Colorado River Valley between McCoy and Azure, and in the Blue River Valley, between Green Mountain Reservoir and Trough Road. It is known to occur on the WRNF in the Dillon, Holy Cross, and Sopris RDs, as well as state, BLM, and private lands. Surveys for this species were conducted in 1982, 1988, 1989 and 1990. They included surveys of historic sites and discovery of new populations. <i>P. harringtonii</i> is considered rare in R2.</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> <li>• CNHP</li> <li>• USDA, NRCS. 2002. The PLANTS Database, Version 3.5 (<a href="http://plants.usda.gov">http://plants.usda.gov</a>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA. (Accessed September 22, 2002)</li> <li>• NatureServe Explorer: An online encyclopedia of life [web application]. 2001. Version 1.6 . Arlington, Virginia, USA: <a href="http://www.natureserve.org/explore">http://www.natureserve.org/explore</a>. (Accessed: September 22, 2002)</li> <li>• Buckner, David L., 1991. 1990 Interim Status Report for <i>Penstemon harringtonii</i> Penland.</li> </ul>
2 Distribution outside R2	A	<p><i>P. harringtonii</i> is not known to occur outside R2.</p> <p>Confidence in Rank: Medium</p>	<ul style="list-style-type: none"> <li>• IBID</li> </ul>
3 Dispersal Capability	A	<p>No specific information is available for <i>P. harringtonii</i> pollinators, seed characteristics, or dispersal mechanisms. The genus <i>Penstemon</i> is known to have a large number of insect pollinators including dipterans, hymenopterans, and lepidopterans; also some species are hummingbird-pollinated. Specific pollinators may depend on the highly specific services of a particular insect. The seeds are generally too large to be carried about as dust, and lack wings or other appendages to encourage dispersal by wind or large animals. The most likely agents are overland flow of water and granivorous rodents. Based on population distribution, potential for specific pollinator requirements, and limited seed dispersal capabilities, <i>P. harringtonii</i> likely has limited dispersal capability and is ranked A.</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> <li>• IBID</li> <li>• L. Watson and M. J. Dallwitz (1992 onwards). The Families of Flowering Plants: Descriptions, Illustrations, Identification, and Information Retrieval. Version: 14th December 2000, Dallwitz (1980), Dallwitz, Paine and Zurcher (1993, 1995, 2000), and Watson and Dallwitz (1991) (Accessed September 22, 2002) <a href="http://biodiversity.uno.edu/delta/">http://biodiversity.uno.edu/delta/</a></li> </ul>

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4 Abundance in R2	A	<p>Reports on numbers of individuals in populations of <i>P. harringtonii</i> are not consistent. One report indicates population sizes range from 5 to 300 individuals. One source reports a total of 8000 individuals from 43 occurrences within 2300 acres. However, one reference indicates there are 300,000 to 500,000 plants present on 55 sites within 132 acres mapped in 1992. Even though there is conflicting information, it appears abundance of <i>P. harringtonii</i> is very low in R2.</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> <li>• IBID</li> </ul>
5 Population Trend in R2	A	<p>One source indicates populations of <i>A. harringtonii</i> may peak every 4 to 5 years due to its short-lived perennial life cycle. This may explain drastic differences in numbers of individuals seen in subsequent years. Qualitatively, population sizes seem to have declined from the early 1980s. It was noted that this decline may reflect a response to drought conditions in 1987 in western CO. This species is ranked A based on the references to declining populations in the 1980s.</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> <li>• IBID</li> </ul>
6 Habitat Trend in R2	D	<p>No information is available on habitat trends of sagebrush communities in R2.</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> <li>• IBID</li> </ul>
7 Habitat Vulnerability or Modification	A	<p>The area of occurrence of this species is located around and near mountain ski towns in CO. Development pressures are high in sagebrush areas historically used for grazing. These areas are now being converted to residential, commercial, and recreational developments. There is also some concern reported over the use of chemicals on sagebrush within the area of occurrences of <i>P. harringtonii</i>. Populations of this plant occur on state, BLM, and private lands. Threats appear to be high in R2 for this species within its' very limited range.</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> <li>• IBID</li> </ul>
8 Life History and Demographics	D	<p>There is no known published or unpublished information about the biology, ecology, or demography of <i>P. harringtonii</i>.</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> <li>• IBID</li> </ul>
Initial Evaluator(s): Janice P. McKee, Botanist			Date: 09/28/02

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National Forests in the Rocky Mountain Region where species is KNOWN (K) or LIKELY(L)<sup>1</sup> to occur:

<u>Colorado NF/NG</u>		<u>Kansas NF/NG</u>		<u>Nebraska NF/NG</u>		<u>South Dakota NF/NG</u>		<u>Wyoming NF/NG</u>	
Known	Likely	Known	Likely	Known	Likely	Known	Likely	Known	Likely
		Cimmaron NG		Samuel R.McKelvie NF		Black Hills NF		Shoshone NF	
X				Halsey NF		Buffalo Gap NG		Bighorn NF	
				Nebraska NF		Ft. Pierre NG		Black Hills NF	
				Ogalala NG				Medicine Bow NF	
								Thunder Basin NG	

<sup>1</sup> Likely is defined as more likely to occur than not occur on the National Forest or Grassland. This generally can be thought of as having a 50% chance or greater of appearing on NFS lands.