

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: <i>Epipactis gigantea</i> (stream orchid)			
Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	A	Sparsely distributed in Cordilleran areas of western U.S., Mexico and southern British Columbia in disjunct occurrences along the margins of rivers, streams, springs, and seeps (strongly associated with thermal springs in northern and mountainous parts of its range.  Confidence in Rank High	<ul style="list-style-type: none"> <li>NatureServe: An online encyclopedia of life [web application]. 2001. version 1.4 Arlington, Virginia.. USA: Association for Biodiversity Information. Available: <a href="http://www.natureserve.org/">http://www.natureserve.org/</a>. (Accessed: June 20, 2001)</li> <li>Hornbeck, J.H. 2001. Species assessment of <i>Epipactis gigantea</i> in Black Hills National Forest.</li> </ul>
2 Distribution outside R2	B	Limited distribution outside RM region, often widely disjunct.  Confidence in Rank High	<ul style="list-style-type: none"> <li>IBID</li> </ul>
3 Dispersal Capability	B	Disperses only through suitable habitat that are often widely separated.  Confidence in Rank High	<ul style="list-style-type: none"> <li>IBID</li> </ul>
4 Abundance in R2	A	Current abundance is low enough in specialized habitat that highly variable environmental factors could conceivably lead to extinction.  Confidence in Rank Medium	<ul style="list-style-type: none"> <li>IBID</li> </ul>

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5 Population Trend in R2	D	First survey done in BHNH in 2000 – no idea of population trend.  Confidence in Rank High	<ul style="list-style-type: none"> <li>• IBID</li> </ul>
6 Habitat Trend in R2	A	Thermal springs are rare and continue to receive more recreational use every year. In addition, weeds such as <i>Cirsium arvense</i> , <i>Tamarisk ramosissima</i> , and <i>Eleagnus angustifolia</i> continue to encroach on the habitat and are difficult to control in immediate proximity to water.  Confidence in Rank High	<ul style="list-style-type: none"> <li>• IBID</li> </ul>
7 Habitat Vulnerability or Modification	B	As state above, habitat is vulnerable to recreational impacts and weed invasion.  Confidence in Rank Medium	<ul style="list-style-type: none"> <li>• IBID</li> </ul>
8 Life History and Demographics	D	Stream orchid reproduces asexually as well as sexually, and large clonal groups exist. However, this orchid (as all others) requires an endomycorrhizal fungal symbiont (speces or group of such fungi has not been identified yet for <i>E. gigantea</i> ). The species' genetic variability and self-compatibility make it well-suited to establishing populations in geographically isolated and variable habitats, however, the probability of influx of new genetic material is low. Consequently, populations are not “interchangeable” as they may differentiate quickly and the development of unique new traits within individual populations is probable. Hence, protection of regional variants is warranted.  Confidence in Rank High	<ul style="list-style-type: none"> <li>• IBID</li> </ul>
Initial Evaluator(s):  Beth Burkhart, Fall River Ranger District, Buffalo Gap NG			Date: 7/6/2001

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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	x	Shoshone NF	L
				Halsey NF		Buffalo Gap NG		Bighorn NF	x
				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.