

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: <i>Oreoxis humilis</i> Raf. / Rocky Mountain alpineparsley / ORHU			
Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	A	Very narrow endemic species known only from four occurrences on Pikes Peak. It is known only from elevations above 10,800 feet, on Pikes Peak and Windy Point granite formations, in alpine fellfields and meadows, krumholtz, and a few spruce-fir forests at timberline. Morphological, chromosomal, and molecular evidence indicate that this plant is distinct from <i>O. alpina</i> .  Confidence in Rank <b>High</b>	<ul style="list-style-type: none"> <li>Beatty, Jennings, &amp; Rawlinson, 2004</li> </ul>
2 Distribution outside R2	A	Does not occur outside of Region 2 (endemic to Pikes Peak).  Confidence in Rank <b>High</b>	<ul style="list-style-type: none"> <li>Beatty, Jennings, &amp; Rawlinson, 2004</li> <li>NatureServe, 2005</li> </ul>
3 Dispersal Capability	D or C	Seed dispersal apparently has not been studied in this species, but the seeds have wings that presumably aid in wind dispersal. High wind speeds can be expected on Pikes Peak at any time of year. Water movement, soil movement, or animals may also disperse seed. (It seems reasonable to assume that seed dispersal is not a significant limiting factor for movement of this species in the landscape over time.)  Confidence in Rank <b>Medium</b>	<ul style="list-style-type: none"> <li>Beatty, Jennings, &amp; Rawlinson, 2004</li> </ul>
4 Abundance in R2	B/A	Estimated as high as tens of thousands of individuals, though restricted to a very small area. It is possible that individuals have been misidentified as a more common species, and that additional occurrences exist below treeline. Demographic stochasticity is less likely a risk than stochastic environmental events or adverse impacts from management actions.  Confidence in Rank <b>High</b>	<ul style="list-style-type: none"> <li>Beatty, Jennings, &amp; Rawlinson, 2004</li> <li>NatureServe, 2005</li> </ul>
5 Population Trend in R2	D	Population trend is unknown, but there is “no evidence of drastic population declines.” However, there is evidence of some negative impacts from recreational use and Pikes Peak Highway construction and maintenance.  Confidence in Rank <b>High</b>	<ul style="list-style-type: none"> <li>Beatty, Jennings, &amp; Rawlinson, 2004</li> <li>NatureServe, 2005</li> </ul>

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Criteria	Rank	Rationale	Literature Citations
6 Habitat Trend in R2	B/D	This species appears to be an edaphic endemic, restricted to exposed Pikes Peak and Windy Gap granite. Within such areas, it grows in a variety of microhabitats, including rocky outcrops, stabilized talus, and grassy meadows. These habitats may be relatively stable under natural conditions, but are being negatively impacted in some places by unregulated recreational uses and facilities use/maintenance (including the Pikes Peak Highway and National Forest System trails). Some habitat has been lost. non- Confidence in Rank <b>Medium</b>	<ul style="list-style-type: none"> <li>• Beatty, Jennings, &amp; Rawlinson, 2004</li> <li>• NatureServe, 2005</li> </ul>
7 Habitat Vulnerability or Modification	B/A	Current land use on Pikes Peak is having some negative impact on occupied or potential habitat for this species in some locations, but there are other areas of habitat that are not currently being adversely impacted. It is reasonable to assume that recreational use at this popular landmark will increase over time, and more of the habitat will be at risk (potentially introducing invasive plants and resultant management actions). Alpine habitats tend to be very slow to recover from disturbances, due to the harsh growing conditions. The overall rank is between "B" and "A" based on "overall extent of habitat modification and resiliency to modification." Confidence in Rank <b>Medium</b>	<ul style="list-style-type: none"> <li>• Beatty, Jennings, &amp; Rawlinson, 2004</li> </ul>
8 Life History and Demographics	D	The species is a perennial and occurs in a harsh alpine environment, but insufficient information is available on life history and demographics to draw inferences about the species ability to rebound from declines due to stochastic or anthropogenic influences. Confidence in Rank <b>High</b>	<ul style="list-style-type: none"> <li>• Beatty, Jennings, &amp; Rawlinson, 2004</li> </ul>
Evaluator(s): Andrew Kratz, Regional Botanist and Steve Olson, Forest Botanist, PSICC			Date: March 31, 2005

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

Species Name: <i>Oreoxis humilis</i>									
<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
		Cimarron NG		Samuel R. McKelvie NF		Black Hills NF		Shoshone NF	
				Halsey NF		Buffalo Gap NG		Bighorn NF	
				Nebraska NF		Ft. Pierre NG		Black Hills NF	
				Ogalala NG				Medicine Bow NF	
								Thunder Basin NG	
	K								

**References:**

Beatty, B.L., W.F. Jennings, and R.C. Rawlinson (2004, August 13). *Oreoxis humilis* Raf. (Rocky Mountain alpineparsley): a technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Available: <http://www.fs.fed.us/r2/projects/scp/assessments/oreoxishumilis.pdf> [Accessed: March 30, 2005].

NatureServe. 2005. NatureServe Explorer: An online encyclopedia of life [web application]. Version 4.3. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: March 30, 2005).

<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.