

impractical, documents may be numbered within the logical sequences of volumes or sections that make up the filing and need not be renumbered to maintain a single numbering sequence throughout the entire filing.

(c) Some filings or portions of filings will not conform to the standard paper specifications set forth in paragraph (a) of this section and may not be scannable. For example, electronic spreadsheets are not susceptible to scanning, but oversized documents, such as oversized maps and blueprints, may or may not be scannable. Filings that are not scannable will be referenced on-line and made available to the public at the Board's offices. If parties file oversized paper documents, they are encouraged to file, in addition to the oversized documents, representations of them that fit on the standard paper, either through reductions in size that do not undermine legibility, or through division of the oversized whole into multiple sequential pages. The standard paper representations must be identified and placed immediately behind the oversized documents they represent.

(d) Color printing may not be used for textual submissions. Use of color in filings is limited to images such as graphs, maps and photographs. To facilitate automated processing of color pages, color pages may not be inserted among pages containing text, but may be filed only as appendices or attachments to filings. Also, the original of any filing that includes color images must bear an obvious notation, on the cover sheet, that the filing contains color.

3. Revise section 1104.3 to read as follows:

§ 1104.3 Copies.

(a) An executed original, plus 10 copies, of every pleading, document, or paper permitted or required to be filed under this subchapter, including correspondence, must be furnished for the use of the Board, unless otherwise specifically directed by another Board regulation or notice in an individual proceeding. Copies may be reproduced by any duplicating process, provided all copies are clear and legible. Appropriate notes or other indications shall be used so that matters shown in color on the original, but in black and white on the copies, will be accurately identified on all copies.

(b) Electronic submissions must be furnished as follows:

(1) Textual submissions of 20 or more pages must be accompanied by three electronic copies submitted on compact discs or 3.5-inch IBM-compatible formatted floppy diskettes in

WordPerfect 9.0 format or earlier releases.

(2) Three sets of evidence or workpapers consisting of mathematical computations must be submitted as functioning electronic spreadsheets in Lotus 1-2-3 Release 9 or Microsoft Excel 97, or compatible versions, on compact discs or 3.5-inch IBM-compatible formatted floppy diskettes. In order to fully evaluate evidence, all spreadsheets must be fully accessible and manipulable. Electronic databases placed in evidence or offered as support for spreadsheet calculations must be compatible with the Microsoft Open Database Connectivity (ODBC) standard. ODBC is a Windows technology that allows a database software package to import data from a database created using a different software package. We currently use Microsoft Access 97 and databases submitted should be in either this format or another ODBC-compatible format. All databases must be supported with adequate documentation on data attributes, SQL queries, programmed reports, and so forth.

(3) One copy of each diskette or compact disc submitted to the Board should, if possible, be provided to any other party requesting a copy.

(4) Each diskette and compact disc must be clearly labeled with the Docket Number of the proceeding in which it is filed; the name(s) of the party(ies) on whose behalf the filing is made, and "CONFIDENTIAL" or "REDACTED" as appropriate. If more than one diskette or disc is submitted for one filing, the label of each must be sequentially numbered to indicate the diskette or disc number and the total number of diskettes or discs filed (e.g., the first disc of a 4-disc set should be labeled "Disc 1 of 4," the second disc "Disc 2 of 4," and so forth).

4. In section 1104.15, remove the citation "21 U.S.C. 853a" and add, in its place, the citation "21 U.S.C. 862" in the section heading and in the text.

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AF75

Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Washington Plant *Hackelia venusta* (Showy Stickseed)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), determine endangered status under the Endangered Species Act of 1973, as amended (Act), for the Washington plant *Hackelia venusta* (showy stickseed). This plant species is a narrow endemic restricted to one small population of approximately 500 plants on less than 1 hectare (2.5 acres) of unstable, granitic talus on the lower slopes of Tumwater Canyon, Chelan County, Washington, entirely on Federal land. Major threats to *H. venusta* include: Collection; physical disturbance to the plants and habitat by humans, competition and shading from native trees and shrubs; encroachment onto the site by nonnative noxious weed species; wildfire; fire suppression and associated activities; and low seedling establishment. Highway maintenance activities, such as the spreading of sand and salt, and the use of de-icers during winter months, threaten the species. Also, the application of herbicides may pose a threat. Reproductive vigor may be depressed because of the plant's small population size and limited gene pool. A single natural or human-caused random environmental disturbance could destroy a significant percentage of the population.

We determine that the designation of critical habitat is not prudent for *Hackelia venusta* because it would likely increase the threats from collection and both direct and inadvertent habitat degradation and destruction. This rule implements the Federal protections provided by the Act for this plant.

DATES: This final rule is effective March 8, 2002.

ADDRESSES: The complete file for this rule is available for public inspection, by appointment, during normal business hours at the Western Washington Fish and Wildlife Office, U.S. Fish and Wildlife Service, 510 Desmond Drive, Suite 102, Lacey, WA 98503.

FOR FURTHER INFORMATION CONTACT: Ted Thomas, (see **ADDRESSES** section), telephone 360/753-4327; facsimile 360/753-9518.

SUPPLEMENTARY INFORMATION:

Background

Hackelia venusta (showy stickseed) is a showy perennial herb of the Borage family (Boraginaceae). The plant was originally described by Charles Piper as *Lappula venusta*, based on a collection from Tumwater Canyon, Chelan County, Washington made by J. C. Otis in 1920. In 1929, Harold St. John reexamined the specimen and placed it in the related genus *Hackelia* upon recognizing that, being a perennial plant, it more properly fit with *Hackelia* than *Lappula*, a genus of annual plants (St. John 1929).

Hackelia venusta is a short, moderately stout species, 20 to 40 centimeters (cm) (8 to 16 inches (in)) tall, often with numerous, erect to ascending stems from a slender taproot. It has large, showy, five-lobed flowers that are white and reach approximately 1.9 to 2.2 cm (0.75 to 0.87 in) across. Basal leaves are 7 to 14 cm (2.8 to 5.5 in) long and 0.64 to 1.3 cm (0.25 to 0.5 in) wide, while the upper stem leaves are 2.5 to 5.1 cm (1 to 2 in) long and 0.38 to 0.64 cm (0.15 to 0.25 in) wide (Barrett *et al.* 1985). The fruit consists of a prickly nutlet, approximately 0.38 to 0.43 cm (0.15 to 0.17 in) long, and is covered with stiff hairs that aid in dispersal by wildlife.

Hackelia venusta is morphologically uniform and is distinct from other species of *Hackelia* occurring in central Washington. It can be distinguished from other species in the genus, in part, by its smaller stature, shorter leaf length, fewer basal leaves, and the large size of the flowers. High-elevation *Hackelia* populations that have, in the past, been assigned to *Hackelia venusta* have distinct morphological features with the most obvious distinction being blue flowers. The Tumwater Canyon flowers are white and on rare occasion washed with blue. Other distinct morphological differences between the Tumwater Canyon and the high-elevation *Hackelia* populations are limb width, plant height, and radical leaf length (Harrod *et al.* 1999).

Hackelia venusta is shade-intolerant (Robert Carr, Eastern Washington University, pers. comm., 1998) and grows in openings within *Pinus ponderosa* (ponderosa pine) and *Pseudotsuga menziesii* (Douglas-fir) forest types. This vegetation type is described as the Douglas-fir zone by Franklin and Dyness (1988). *H. venusta* is found on open, steep slopes (minimum of 80 percent inclination) of

loose, well-drained, granitic weathered and broken rock fragmented soils at an elevation at about 486 meters (m) (1,600 feet (ft)). The type specimen for *H. venusta* was collected at a site between Tumwater and Drury in Tumwater Canyon, west of Leavenworth, Washington. *H. venusta* is restricted to this single population in Tumwater Canyon. The population is found in an area designated as the Tumwater Botanical Area by the Wenatchee National Forest. This designation was originally established in 1938 to protect a former candidate plant, *Lewisia tweedyi* (Tweedy's lewisia), that has been found to be more widespread than previously considered (F.V. Horton, U.S. Forest Service (Forest Service), *in litt.* 1938; Forest Service 1971). The designation for the botanical area remains because of the presence of *Hackelia venusta* and *Silene seelyi* (Seely's catch-fly), a species of concern due to its declining status.

Three other locations within 20 km (12 mi) of the type locality were thought to harbor *Hackelia venusta*. One location near Crystal Creek Cirque was relocated in 1986 after not having been seen since 1947 (Gamon 1988a). A second location near Asgard Pass was not discovered until 1987 (Gamon 1988a). The Asgard Pass population was apparently extirpated by a major landslide during 1994 or 1995 (Richy Harrod, Forest Service, pers. comm., 1996). A third location was discovered on Cashmere Mountain in August 1996 (R. Harrod, pers. comm., 1996). The Crystal Creek and Cashmere Mountain locations occur about 10 km (6 mi) apart and are both within the Alpine Lakes Wilderness Area of the Wenatchee National Forest. Elevations for these populations range from 1,920 to 2,255 m (6,300 to 7,400 ft). Recent information indicates these two high-elevation locations are a distinct taxon, different from the *H. venusta* found in the Tumwater Canyon population (Harrod *et al.* 1999). The Tumwater Canyon plants have a larger white corolla, a taller habit, remote lower leaves, and in general, the leaves are less stiff and leathery. The Crystal Creek and Cashmere Mountain populations, in contrast, have small, blue flowers and are more compact. The population at Tumwater Canyon does not have individuals that are intermediate in these characters. Also, the Tumwater Canyon population is geographically and reproductively isolated from the Crystal Creek and Cashmere Mountain populations. The Crystal Creek and Cashmere Mountain populations are temporally isolated from the Tumwater

Canyon population in relation to their local seasons and climatic zones. The Tumwater Canyon population flowers in spring, while the Crystal Creek and Cashmere Mountain populations are under several meters of snow and normally flower in July.

Isozyme analysis conducted by the Forest Service indicates a clear separation between the Tumwater Canyon and high-elevation populations of *Hackelia* (Carol Aubry, Forest Service, pers. comm., 1998; Wilson *et al.*, in review). This analysis measures the differences in plant proteins (usually an enzyme) and can be used to detect genetic differences among populations. Dr. Robert Carr, Professor of Botany, Eastern Washington University, attempted specific and intraspecific crosses with 18 species of North American *Hackelia* over a 3-year period but was unable to produce viable seed from these crosses in the greenhouse. Dr. Carr indicated that he had not attempted to cross the Tumwater Canyon and Crystal Creek/Cashmere Mountain populations, primarily because of the difficulty of growing *Hackelia* from seed in the greenhouse, and the temporal differences in the two populations' flowering. Dr. Carr, an expert on the genus *Hackelia*, has confirmed on numerous occasions that the Tumwater Canyon and high-elevation populations are separate and should be considered two separate and distinct species (R. Carr, pers. comm., 1998, *in litt.* 2000). The high-elevation species of *Hackelia* has been recently described and named as *H. taylori* (Harrod *et al.*, in review). Since the Crystal Creek and Cashmere Mountain populations are distinct from *Hackelia venusta*, they are not the subject of this final rule and will not be further discussed.

An occurrence of what was originally cataloged as *Hackelia venusta* was found in 1948 in Merritt, WA, in Chelan County, but attempts to relocate the site have failed. Changes in land use do not support growth of this species in this area anymore. The current element occurrence records of the Washington Natural Heritage Program designate this site as historic. Recent taxonomic work on the genus *Hackelia* indicates that the herbarium specimen for the Merritt site fits more closely into the subspecies *H. diffusa* var. *arida*. This subspecies will often have large white flowers and could have been misleading to the early plant collectors (Harrod *et al.*, 1999; R. Harrod, *in litt.* 2000). This being the case, the Tumwater Canyon population of *Hackelia venusta* may have always been the only location for the species.

In Tumwater Canyon, *Hackelia venusta* occurs primarily on unstable soils on steep rocky slopes and outcrops, though scattered individuals formerly occurred along a State highway roadcut and within the road right-of-way (ROW). The species is found entirely on Federal land administered by the Wenatchee National Forest. *H. venusta* appears to be somewhat adapted to natural and possibly human-caused substrate disturbance (R. Carr pers. comm., 1998). Although potential habitat for this species is widespread in Tumwater Canyon, the plant is scattered throughout an area of less than 1 hectare (ha) (2.5 acres (ac)).

In 1968, the taxon appeared "limited to a few hundred acres" (Gentry and Carr 1976), and in 1981 the population was estimated to have 800 to 1,000 plants. In 1984, and again in 1987, fewer than 400 individuals were found over an area of approximately 5 ha (12 ac) (Gamon 1988a). Personal observations by Ted Thomas (Service) (in cooperation with Richy Harrod (Forest Service) and Paul Wagner, Washington Department of Transportation (WDOT)), using an intensive search and count method on May 11, 1995, revealed fewer than 150 individuals growing on less than 1 ha (2.5 ac) of suitable habitat. According to Dr. Carr, the area occupied by *H. venusta* is greatly reduced, and the number of individual plants has seriously declined since he first visited the Tumwater Canyon population in the early 1970s (R. Carr, pers. comm., 1996). Although earlier counts were conducted by different workers using different techniques, the population size shows a clear downward trend.

During the late 1990s, and since the publication of the proposed rule to list the species on February 14, 2000 (65 FR 7339), the population of *H. venusta* has been monitored on an annual basis. In May 2000, nearly 300 plants were counted, and in May 2001, the number of plants in the population approached 500 plants (Lauri Malmquist, Forest Service, *in litt.* 2000, pers comm., 2001). The increase in the population size can be attributed to several events that have occurred in the past 7 years within the habitat for the species. Wildfires burned through Tumwater Canyon in 1994, resulting in both positive and negative effects on *H. venusta* habitat. The primary positive outcome was that the forest canopy was reduced, creating less shade and competition, and more open growing space that created new, suitable sites for the natural regeneration and establishment of *H. venusta* seedlings. The negative impact is the increased potential of landslides when wildfire removes overstory vegetation.

Additionally, the Forest Service has been proactive in their treatment of the nonnative noxious weed problem within Tumwater Canyon. To reduce the nonnative plant threat to *H. venusta*, the Leavenworth Ranger District staff, Wenatchee National Forest, have both removed weeds by hand and carefully applied herbicides to them in *H. venusta* habitat. This project was implemented in 1999 and 2000, emphasizing treatment to the habitat directly adjacent to the State highway where invasive species tend to become established and then spread into the remainder of the population. (R. Harrod, pers comm., 2001).

Lastly, during the winter of 2000, the Forest Service, in cooperation with the WDOT and the Service, implemented a restoration project within the habitat of *Hackelia venusta*. About 35 small trees and one very large standing dead tree were felled and removed from the site (L. Malmquist, *in litt.* 2001; R. Harrod, pers. comm., 2000), using a deep snowpack to avoid impacts to the soil and protect the dormant *H. venusta* population. Each of these projects reduced shade; increased light onto the slope; reduced competition for light, water, and nutrients with native and nonnative trees, shrubs, and weeds; and provided new germination substrates for the establishment of *H. venusta* seedlings.

Previous Federal Action

Section 12 of the Act (16 U.S.C. 1541) directed the Secretary of the Smithsonian Institution to prepare a report on those plants considered to be endangered, threatened, or extinct in the United States. This report, designated as House Document No. 94-51, was presented to Congress on January 9, 1975. We published a notice in the July 1, 1975, **Federal Register** (40 FR 27823) announcing our decision to treat the Smithsonian report as a petition within the context of section 4(c)(2) (petition provisions are now found in section 4(b)(3)) of the Act and our intention to review the status of those plants. *Hackelia venusta* was included in this petition as an endangered species.

On December 15, 1980, we published a Notice of Review for plants (45 FR 82480) that included *Hackelia venusta* as a category 1 candidate species. Category 1 candidates were those species for which we had on file substantial information on biological vulnerability and threats to support preparation of listing proposals. The plant notice revision of September 27, 1985 (50 FR 39525), included *H. venusta* as a category 2 candidate. Category 2 candidates were those

species for which information in our possession indicated that proposing to list as endangered or threatened was possibly appropriate, but for which conclusive data on biological vulnerability and threats were not currently available to support a proposed rule. Pending completion of updated status surveys, the status was changed to category 1 in the February 21, 1990, Notice of Review (55 FR 6183). In the September 30, 1993, Notice of Review (58 FR 51144), *H. venusta* remained a category 1 candidate.

In the February 28, 1996, Notice of Review (61 FR 7596), we discontinued the use of multiple candidate categories and considered the former category 1 candidates as simply "candidates" for listing purposes. However, in that Notice of Review, *Hackelia venusta* was removed from the candidate list due to questions regarding the species' taxonomic status. An updated status review, completed in June 1997, reflected the new taxonomic information that determined only a single population of *H. venusta* currently existed. In the October 29, 1999, Notice of Review (64 FR 57534), *H. venusta* was included as a candidate species with a listing priority of 2.

We published a proposed rule to list the species as endangered on February 14, 2000 (65 FR 7339). The final rule for *Hackelia venusta* was delayed because of the need to focus our limited listing resources on listing actions that were under court order or settlement agreement during fiscal year 2001 which did not include *H. venusta*.

In March 2000, the Forest Service consulted with the Service on a restoration project to improve the habitat where *Hackelia venusta* is found. In an informal conference report, we concurred that the project "was not likely to jeopardize the continued existence" of *H. venusta*. If the species was listed in the future, the Forest Service concluded that the determination of effects for the project "may affect, not likely to adversely affect" the species (Service 2000).

On October 2, 2001, a consent decree was entered to settle listing litigation with the Center for Biological Diversity, Southern Appalachian Biodiversity Project, Foundation for Global Sustainability, and the California Native Plant Society which requires us to complete work on a number of species proposed for listing. Under this settlement, we will issue several final listing decisions, including a final decision for *Hackelia venusta*. The consent decree requires us to send a final listing determination for this species to the **Federal Register** by

February 6, 2002 (*Center for Biological Diversity, et al. v. Norton*, Civ. No. 01–2063 (JR) (D.D.C.)). On November 7, 2001, we reopened the comment period for an additional 30 days to accommodate the public notice requirement of the Act (66 FR 56265).

Summary of Comments and Recommendations

In the February 14, 2000, proposed rule (65 FR 7339), we requested all interested parties to submit factual reports, information, and comments that might contribute to the development of the final listing decision. We contacted appropriate State agencies, county and city governments, Federal agencies, university scientists, consulting organizations, conservation organizations and other interested parties and requested them to comment. Following the publication of the proposed rule, we received 20 written comments during the 60-day comment period. Comments were received from a variety of sources, including three Federal agencies, three Washington State agencies, three non-governmental organizations, four botanical and environmental consultants, one university, and six individuals. We reopened the comment period on November 7, 2001 (66 FR 56265) for 30 days and requested any new information from the public on the species since publication of the proposed rule. We published a legal notice in the *Wenatchee World* newspaper on November 13, 2001. We received an additional 12 comments during the second comment period, although three of these commenters had provided comments during the first comment period. Therefore, we received comments from a total of 29 respondents.

All 29 commenters supported the listing of *Hackelia venusta* as endangered. Several commenters provided new information on the current status of the species, and information on new threats to this single population of the *H. venusta*, which we have incorporated into this final rule. We have addressed each of the substantive issues raised by commenters by grouping the comments into four issues that are discussed below.

Issue 1: The overwhelming comment received from 28 of the 29 commenters was that designation of critical habitat for *Hackelia venusta* is not prudent. The principal concern is the increased risk of collection of the species that would occur from the publication of maps. Only one commenter supported critical habitat designation, although he admitted that designation of critical

habitat would increase collection pressure on the population.

Our Response: Under the critical habitat section in the proposed rule, we stated that it was prudent to designate critical habitat for *Hackelia venusta* because it did not appear that collection of the species was a threat to its existence. However, information provided in the “Summary of Factors Affecting the Species” section (Factor B) of the proposed rule indicated otherwise. This section presented evidence of collection as a threat to the species. This information is consistent with the public comments expressing opposition to the designation of critical habitat for *H. venusta*. Only one commenter supported the designation of critical habitat, although this letter offered no substantive reason for this support. We are supported in our determination of a not prudent finding for the designation of critical habitat by a consensus of scientists, land managers (Federal, State, and county), professional botanists, local wildflower enthusiasts, non-governmental organizations, and environmental and botanical consultants. Each of these commenters expressed concern that the publicity associated with designating critical habitat for *H. venusta* would increase the threat of collection of the species, which exists in only one location.

Twenty commenters noted that they have witnessed, or were aware of collection of the species; many of these commenters admitted they have personally collected the species for herbarium or voucher specimens. One commenter presented information about a field botany class that had extensively collected the species on a taxonomy outing (Florence Caplow, Calypso Consulting, *in litt.* 2000). The rarity of the species was not known to the class or the instructor until they had returned to the laboratory to key and identify the plant. During the summer of 2000, while Forest Service personnel were counting the number of plants in the population and monitoring the habitat, they witnessed collection of a large individual specimen of *Hackelia venusta* and reported the action to our office the following day (L. Malmquist, pers. comm., 2000; J. Brickey, *in litt.* 2001; Terry Lillybridge, Forest Service, *in litt.* 2001; and R. Harrod, pers. comm., 2000). Forest Service personnel suspect the collector had purposely targeted a specific individual plant from the population because it was full, vigorous, and attractive (L. Malmquist, pers. comm., 2000). The specific plant had caught the attention of the Forest Service botanists as a particularly

enticing plant, and its absence and the hole left from it being removed was easily noticed. Another commenter stated that “rare plants bring a lot of money” to collectors and designation of critical habitat would further advertise the species’ presence, beyond listing of the species, so that it may be increasingly pursued (D. Wernitz, *in litt.* 2000).

The District Ranger for the Leavenworth Ranger District commented that a critical habitat designation is not desirable, and it is against Forest Service policy (Forest Service Manual 2671.2) to make public the location of proposed, endangered, threatened, or sensitive species. This policy is consistent with the Thomas Bill (Pub. L. 105–391, section 207, 16 U.S.C. 5937), which was enacted to give the National Park Service the authority to withhold from the public any specific locality data for endangered, threatened, and rare species or commercially valuable resources within a park. The Forest Service believes that divulging locations or producing maps of *Hackelia venusta* habitat would greatly compromise their ability to protect the species on Forest Service lands where it occurs. Additionally, he commented that publicizing the location of critical habitat for this species was contrary to the ongoing coordination and Cooperative Agreement between Washington State’s Natural Heritage Program, the Forest Service, and the Service, which includes a mutual agreement to not make public the location of proposed, endangered, threatened, or sensitive species.

It is not possible to designate critical habitat without increasing the public’s attention to the species’ location, and increased collection pressure will adversely affect the species and degrade its habitat. A single, heavily used highway allows access to the species’ single location. While the species is in bloom, the plant population is easily visible. We have designated critical habitat for other attractive plants that were much less accessible to collectors, such as *Hudsonia montana* (mountain golden heather). *Hudsonia montana* was collected extensively and dwindled to only two plants soon after critical habitat was designated (Nora Murdock, Service, pers. comm., 2000). The situation for *Hackelia venusta* is comparable to the *Hudsonia montana* example, although the site location for *H. venusta* is more accessible to potential collectors than the more remotely located *Hudsonia montana*. We believe that because of the highly accessible location of this species, a designation of critical habitat would

increase collection and thereby increase the risk of extinction to this species.

Collection of *Hackelia venusta* has been documented for more than 35 years (R. Carr, *in litt.* 2000). The species has been collected for scientific purposes, by random visitors who were likely unaware of the rarity of the species, and perhaps by plant collectors who have purposely visited the site to collect the species. Those who have collected the species in the past for scientific purposes have observed the plant population decline to a low of 150 plants, and the spatial distribution of the suitable habitat has dwindled to less than 1 ha (2.5 ac) (T. Thomas, pers. obs., 1995, with R. Harrod and P. Wagner). These scientists are now aware of the extreme rarity and status of the species and seek its protection, without the designation of critical habitat (R. Carr, *in litt.* 2000; K. Robsen, *in litt.* 2001; R. Crawford, *in litt.* 2001; T. Lillybridge, *in litt.* 2001; William Null, *in litt.* 2001; E. Guerrant, *in litt.* 2001; Sarah Reichard, University of Washington, *in litt.* 2001). The conservation Chair of the Washington Native Plant Society (WNPS), on behalf of its 1,800 members, stated that "the only real protection for rare plants is safeguarding of the specific location data and maps" (Debra Salstrom, WNPS Conservation Chair, *in litt.* 2001). In summary, the issue of long-term plant collection, and the high probability of continued and increased plant collection in the future support our determination to not designate critical habitat or publish associated maps for *H. venusta*.

We believe anything that increases the risk of losing individuals in this single population, such as publicizing its location, further imperils the species' survival and recovery. Based on the information provided in the comments, the recent, continued evidence of collection of the species, and the highly accessible and visible location of this showy plant, we have reconsidered our earlier decision that designation of critical habitat was prudent. We have determined that the designation of critical habitat is not prudent for *Hackelia venusta*. It would increase the threat of collection of the species and the associated degradation of its habitat.

Issue 2: Nine commenters were concerned that any increased visitation to the site resulting from designating critical habitat and publishing maps of the plant's location would increase erosion of the habitat and the potential for trampling *Hackelia venusta*. Dr. Ed Guerrant summarized this concern well by stating "Even if the enthusiasts don't take whole plants (a common form of collection) or seeds, simply climbing up

the very loose sandy hill on which they occur to photograph the plants will seriously erode and further damage their fragile habitat" (E. Guerrant, *in litt.* 2000). Dr. Sheryl McDevitt, a local wildflower enthusiast, stated that the "designation of critical habitat might be the most deleterious thing we could do. Aside from the possibility of rare plant collectors trudging up to grab their prize, a few amateur wildflower enthusiasts scrambling up the hill could do immeasurable damage to the existing plants and their habitat" (Sheryl McDevitt, *in litt.* 2000). Other commenters having experience with *H. venusta* habitat were concerned that any activity occurring on the species' habitat would adversely impact the fragile, highly erodible, steep slope where the plants are found (Jane Wentworth, WDNR, *in litt.* 2001; T. Lillybridge, *in litt.* 2001; L. Malmquist, *in litt.* 2001).

Our Response: We agree with the commenters that the site is fragile and easily eroded. Just walking on the slope where the plants are found dislodges small rocks and boulders that can dislodge plants, crush or bury them by movement of the substrate. Any increased visitation would likely lead to increased disturbance of the habitat and trampling of the plants. Therefore, we have determined that designating critical habitat for *Hackelia venusta* is not prudent.

Issue 3: Four commenters expressed concern for public safety along the highway, which is highly constrained in this narrow and dangerous stretch of Tumwater Canyon (C. Antieau, *in litt.* 2000). Their major concern was that designating critical habitat would increase public interest in the species, thereby promoting increased pedestrian traffic to visit the site, causing safety issues for pedestrians and motorists, in addition to the increased threat of collection. WDOT also strongly opposes designation of critical habitat for *Hackelia venusta*, especially because of their concern that as more people walk on the steep, unstable slope, it will increase the probability that rocks and other debris will be dislodged and fall down the slope onto the highway, endangering auto traffic and their occupants or pedestrians on the roadway (F. Caplow, *in litt.* 2001).

Our Response: Public safety is not a factor in the evaluation of whether or not designation of critical habitat is prudent. However, we are concerned about public safety, and recognize the issues associated with this narrow stretch of highway. We have cooperated with WDOT on developing their "Management Plan for Rare Plant

Species in Tumwater Canyon" (WDOT 2000).

WDOT constructed a small asphalt roadside turnout directly below and on the same side of the highway as the *Hackelia venusta* population during the spring of 2000. This turnout was constructed to provide a safe place for highway crews to park their vehicles in the narrow canyon when conducting road maintenance. However, because this turnout gave people greater access to the *H. venusta* population, the Forest Service coordinated with WDOT to remove the turnout in order to protect the plant species and its habitat (L. Malmquist, *in litt.* 2001). By removing the turnout, it also removed some of the danger to pedestrians who would stop to photograph the scenery or collect the plant.

Issue 4: Many commenters mentioned that because the species is found entirely on Federal land in an area under special management designation as the Tumwater Botanical Area, where the conservation and protection of *Hackelia venusta* and other rare plants is the primary management goal, it would be a redundant effort to designate critical habitat for the species.

Consensus among these commenters was that the greatest benefit afforded to this species would be to determine that the designation of critical habitat is not prudent. Several of these commenters felt that the most effective use of funds would be for us to continue to cooperate with the Forest Service, WDOT, and WDNR on research and habitat restoration actions that would benefit the species and its habitat (R. Crawford, *in litt.* 2001; F. Caplow, *in litt.* 2001).

Our Response: We have determined that designation of critical habitat for *Hackelia venusta* is not prudent (see responses to Issue 1 and 2). Consideration of whether ongoing special management is sufficient to exempt a critical habitat designation is not necessary unless we determine that critical habitat is prudent. We do, however, encourage the cooperative endeavors of State and Federal agencies in their management of *H. venusta* and its habitat.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we have sought the expert opinions of at least three appropriate and independent specialists regarding our proposal to list *Hackelia venusta*. The purpose of these reviews is to ensure that listing decisions are based on scientifically sound data, assumptions, and analyses. We sent these peer reviewers copies of the

proposed rule immediately following its publication in the **Federal Register**. All the peer reviewers who responded agreed with listing, supported our determination that collection pressure is a serious threat, and opposed designation of critical habitat. We have incorporated their comments into this final determination (many are in the "Summary of Comments" section).

Summary of Factors Affecting the Species

Section 4 of the Act and regulations (50 CFR Part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal lists. We may determine a species to be endangered or threatened due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Hackelia venusta* (showy stickseed) are as follows:

A. The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range

The range of *Hackelia venusta* has been reduced to a scattered distribution occupying less than 1 ha (2.5 ac) in Tumwater Canyon, entirely on Federal lands of the Wenatchee National Forest. This restricted population consisted of approximately 500 plants in 2001 (L. Malmquist, pers. comm., 2001) and constitutes the sole population of *Hackelia venusta*.

The primary loss of habitat for *Hackelia venusta* has resulted from changes in habitat due to plant succession in the absence of fire. Fire suppression has been a factor in reducing the extent of the Tumwater Canyon population (Gamon 1988a; Gamon 1988b; D. Wertz, *in litt.* 2000). Wildfires play a role in maintaining open, sparsely vegetated sites as suitable habitat for *H. venusta*, a requirement of this shade-intolerant plant (R. Carr, pers. comm., 1998, *in litt.* 2000). The species prefers habitat that has been burned, has little competing vegetation (D. Wertz, *in litt.* 2000), and likely has soil low in organic matter (R. Carr, pers. comm., 1998). The species has expanded its distribution into canopy openings created by a wildfire in 1994, where it was not previously found (T. Thomas, pers. obs. 1998; P. Wagner, *in litt.* 2000). These plants are all found in close proximity to the original population and are probably offspring of the existing population. Seeds were likely carried to the open substrate by wind or gravity, and germination was aided by the increase in light and moisture within these canopy gaps where there is reduced competition

from native trees and shrubs and noxious weeds.

Two nonnative, Washington State-listed noxious weeds (Ch. 16, WAC and Ch. 17.10 RWC 1997) occur within the habitat of *Hackelia venusta* in Tumwater Canyon. *Linaria dalmatica* (dalmatian toadflax) and *Centaurea diffusa* (diffuse knapweed) are present along the roadside, and have increased in their numbers and distribution during the 1990s, and have encroached into the population of *H. venusta* (J. Wentworth, *in litt.*, 2001). During visits to the *H. venusta* population in 1995, 1996, 1997, and 1998, the Service (T. Thomas, pers. obs.) noted that the cover and distribution of the noxious weeds had increased over this 1995–1998 time period. Without intervention, these species have the ability to completely outcompete *H. venusta* and replace native vegetation, and eventually dominate the site (J. Wentworth, *in litt.* 2001).

Highway maintenance activities are an ongoing threat. The highway is sanded during winter months, and occasionally a mixture of sand and salt is applied, affecting the immediate roadside habitat where *Hackelia venusta* is found. Highway maintenance activities involving the clearing of landslide material from the highway ROW resulted in the destruction of approximately 50 *H. venusta* individuals several years ago (R. Harrod, pers. comm., 1997, 2001). Although the roadsides have not been sprayed with herbicides in recent years by WDOT, spraying did occur for a considerable period of time prior to 1980. The residual effect of herbicide spraying on *H. venusta* is unknown. Some herbicides are known to be resident in the soil for long periods of time, affecting the plants that persist there. In 1999 and 2000, the application of herbicides by Forest Service personnel was used as a method for reducing the amount and distribution of nonnative, noxious weeds. Although they were used with great caution by Forest Service staff with knowledge of *H. venusta*'s presence, the threat from herbicide drift and residue remains.

Small surface erosion events and large landslides of the unstable slope where the *Hackelia venusta* population is located are also a threat to the species. The steepness of the slope exceeds 100 percent (45 degree) inclination in many places, and the slope's instability constitutes a significant threat as a major landslide could bury the entire population (Gamon 1997). The threat of soil being dislodged and the burying, trampling, or dislodging of plants below these soil releases has been witnessed as

more people visit the habitat to photograph or collect the plant (Pam Camp, *in litt.* 2000; Susan Ballinger, *in litt.* 2000; Joan Frazee, Washington Native Plant Society, *in litt.* 2000; F. Caplow, *in litt.* 2000; K. Robson, *in litt.* 2001). The potential for slumping (deep-seated mass movement) has increased since 1994, when wildfires burned through the forest in Tumwater Canyon where *H. venusta* is located. The reason for a higher potential for landslides is that water uptake by trees and other vegetation that were killed by the 1994 fire is reduced plus there is no transpiration from the vegetation, therefore there is more soil water. This is a case where the response to fire may have negative consequences. Another contributing factor is that when tree roots decompose, their ability to bind soil particles and water is decreased. When this happens, the potential for landslides increases. A large landslide in the location of the Tumwater Canyon population of *H. venusta* would severely degrade the habitat and reduce the plant population.

Although there are no data regarding the effects of automobile emissions on this species, such emissions should be considered a potential threat, given the proximity of the road to the population. The highway is heavily used, with 3,900 to 5,200 automobiles traveling daily through Tumwater Canyon, which is very narrow (WDOT 1996). According to population projections, 100,000 people will move into the State of Washington each year (Washington Office of Financial Management 1995). Trends for Chelan County indicate an increase from the current human population of 52,250 (1995) to more than 86,000 people in the year 2020, a 39 percent increase (Washington Office of Financial Management 1995). A larger human population will increase the demands for recreational activities and bring more people to central Washington. Automobile emissions are likely to increase along this heavily traveled corridor. These emissions, containing ozone and sulphur and nitrate oxides, negatively affect photosynthesis of coniferous and herbaceous plants (Forest Service 1979).

B. Overutilization for Commercial, Scientific, or Educational Purposes

The remaining known population is at risk of extirpation due to a variety of threats. The greatest threat to *Hackelia venusta* is the long history of collection pressure (R. Carr, *in litt.* 2000; Rex Crawford, Washington Department of Natural Resources (WDNR), *in litt.* 2001; L. Malmquist, *in litt.* 2000; Jennifer Brickey, University of Washington

graduate student, *in litt.* 2001; Kali Robson, Cowlitz County Soil and Water Conservation District, *in litt.* 2001; Ed Guerrant, Berry Botanic Garden, *in litt.* 2001) and associated physical disturbance to the habitat and the individual plants from people trampling the slope to monitor the population and photograph the plants (Clayton Antieau, WDOT, *in litt.* 2000). Regional and local botanical professionals and wildflower enthusiasts who are interested in observing the plant in its natural habitat visit the site, as well as curious individuals who have requested directions and information about the plant in response to numerous references about the rarity of the species, either in the local newspaper or broadcasts on the local radio station (L. Malmquist, *in litt.* 2001). The radio broadcast, which featured local rare plants, gave a lot of notoriety to *H. venusta*, and the local Forest Service district office experienced an increase in the number of people coming in to ask where they could find the species (L. Malmquist, pers. comm., 2001).

Wildflower collecting poses a serious threat, and future collecting could increase, especially if the *Hackelia venusta* site becomes known to the general public by the publication of maps or from media exposure (L. Malmquist, *in litt.* 2001). *H. venusta* has been collected by scientists, amateur wildflower enthusiasts, and random visitors to the population for more than 30 years (R. Carr, *in litt.* 2000; R. Harrod, *in litt.* 2000; F. Caplow, *in litt.* 2000; L. Malmquist, *in litt.* 2001; R. Crawford, *in litt.* 2001). The Tumwater Canyon population is easily accessible to the public because it is located near a heavily used highway with a turnout directly across the road. Amateur and professional botanists know of the location of the *H. venusta* population, and their collecting activities likely have reduced the number of plants in the population and have degraded the habitat (Gamon 1997; R. Carr, *in litt.* 2000; Glenn Hoffman, Forest Service, *in litt.* 2000; R. Harrod, *in litt.* 2000; R. Crawford, *in litt.* 2000, 2001, F. Caplow, *in litt.* 2001).

In May 1998, representatives from the Service, the Forest Service, and Eastern Washington University witnessed a person collecting the plant as they inspected the *Hackelia venusta* site (T. Thomas, pers. obs., 1998; Jon Gilstrom, *in litt.* 2000; R. Harrod, *in litt.* 2000). The species was also witnessed being collected while Forest Service personnel monitored the plant population in the spring of 2000 (L. Malmquist, pers. comm., 2000, *in litt.* 2001). Both incidents, and the large number of

comments we received about collection of the plant, indicate that the species, when in bloom, is eye-catching and sufficiently attractive to cause someone to stop and remove the plant, presumably for personal use. Not only does the removal of plants cause a loss of reproductive potential, but trampling the site to access the plants could have a devastating effect on the remaining plants.

C. Disease or Predation

Disease is not currently known to be a threat to this species. No livestock or wildlife are known to graze on *Hackelia venusta*.

D. Inadequacy of Existing Regulatory Mechanisms

Although the known population of *Hackelia venusta* is located in an area designated as a special management area, the species remains vulnerable to threats. The Tumwater Canyon Botanical Area was designated by the Wenatchee National Forest in 1938 because of the occurrence of *Lewisia tweedyi*. *Lewisia tweedyi* has since been found to be more widespread than previously known and is no longer a species of concern for the area. The Wenatchee National Forest has maintained the Botanical Area designation and has implemented special management specifically targeted to conserve rare species, such as *H. venusta* and *Silene seelyi*. Both species are listed on the Forest Service Regional Forester's Sensitive Species List, which requires the Forest Service to maintain or enhance the viability of these species by considering the species in their project biological evaluations, and to mitigate actions that may adversely affect the species. The Forest Service also prohibits the collection of native plants without a permit, although this regulation has been difficult to enforce (R. Harrod, pers. comm., 1998). *Silene seelyi* grows in rock outcrop crevices near where *H. venusta* is located, but it does not occupy the talus habitat where *H. venusta* is found.

Management activities in the Botanical Area have emphasized botanical values (T. Lillybridge, pers. comm., 1998). In 2000, the Forest Service developed a habitat restoration plan in which they conducted an environmental analysis, conferred with us, and implemented restoration activities to improve and restore *Hackelia venusta* and *Silene seelyi* habitat. The Botanical Area is also managed as a designated Late-Successional Reserve (LSR) under the Northwest Forest Plan, which permits some silvicultural and fire hazard

reduction treatments (Forest Service and Bureau of Land Management 1994).

WDOT developed a management plan, "Final Management Plan for Rare Plant Species in Tumwater Canyon, Wenatchee National Forest with associated Best Management Practices" (BMPs) (WDOT 2000). This plan provides guidance and BMPs for road crews conducting maintenance activities that are undertaken along the stretch of the highway in Tumwater Canyon that *Hackelia venusta* occupies (WDOT 2000). Funding for maintenance activities is covered through base allocations to keep the highway cleared of snow, debris, and overhanging vegetation, the guidelines outlined in the plan are implemented during the course of routine maintenance operations. The management practices outlined in the plan enable WDOT crews to accomplish maintenance goals without harming the plant or its habitat. The plan was developed in coordination with the Forest Service, WDNR, and the Service. Funding for implementation of this plan cannot be assured on an annual basis.

The Washington Natural Heritage Program, in coordination with the Wenatchee National Forest, also developed management guidelines for *Hackelia venusta* in 1988 (Gamon 1988b). The plan contained recommendations that specific actions be taken to protect the plant on National Forest land. These guidelines included the recommendation that the Wenatchee National Forest develop a species management guide to provide management direction for the habitat of this species. The Wenatchee National Forest developed a draft management guide several years ago, but has not yet finalized it (T. Lillybridge, pers. comm., 1997).

The WDNR designated *Hackelia venusta* as endangered in 1981 (Washington Natural Heritage Program 1981), and the species designation has been retained in subsequent updates of the State's endangered species list. However, this listing does not provide any regulatory protection for the plant.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

Low seed production, as well as low genetic variation, are factors in the decline of *Hackelia venusta*. At the Tumwater Canyon site, an estimated high proportion (60 to 70 percent) of *H. venusta* seeds did not develop in 1984 (Barrett *et al.* 1985). Fruit development was poor on many plants; only a few individuals exhibited mature fruit development. It is unknown why this occurred, but low genetic variation may

have contributed to poor reproduction success (R. Carr, *in litt.* 2000; D. Wertz, *in litt.* 2000). This reduced reproductive potential may be a major factor in the reduction of plants at the type locality. The age structure of the extant population at Tumwater Canyon, poor seed production and germination of new seedlings, and historical estimates of population size indicate that the population is declining (Barrett *et al.* 1985; Gamon 1997), although recent Forest Service monitoring of the population has shown that the population has increased during the period from 1995 to 2001 (L. Malmquist, pers. comm., 2000; *in litt.* 2001; P. Wagner, *in litt.* 2000). The increase in population size can likely be attributed to the improved habitat conditions brought on by restoration activities and the effects of a wildfire that burned through Tumwater Canyon in 1994 (see our response for Issue 4 in the ("Summary of Comments and Recommendations")).

The small size of the *Hackelia venusta* population is a major problem. Seedling establishment is most critical, and trampling may significantly affect the germination of seedlings (R. Carr, pers. comm., 1998, *in litt.* 2000; K. Robson, *in litt.* 2001). Human activities along the roadside turnout at the Tumwater Canyon site represent a significant threat to plants nearest the turnout. Motorists use the area to view the Wenatchee River, often venturing over the guardrail and along the bank below the road. Plants on this bank are damaged by trampling, burial by loose rock, and root exposure as a result of human traffic on the unstable slopes (Gamon 1997).

Fire suppression during this century is likely a factor in the reduced spatial distribution of the Tumwater Canyon population. Historically, fuels in the forest type where *Hackelia venusta* is found were rarely at high levels because of the frequent fires that consumed forest floor fuels and pruned residual trees (Agee 1991). In the past, fires suppressed the encroachment of woody vegetation and maintained open areas more conducive to *H. venusta* reproduction and growth. Continued suppression of fires in this forest type could bring about additional losses to suitable habitat (Barrett *et al.* 1985; Gamon 1997; D. Wertz, *in litt.* 2000).

Competition from *Linaria dalmatica* (dalmatian toadflax) and *Centaurea diffusa* (diffuse knapweed) is a threat to *Hackelia venusta* (J. Wentworth, *in litt.* 2001). Both of these noxious weeds outcompete many native plant species through uptake of water and nutrients, interference with photosynthesis and

respiration of associated species, and production of compounds that can directly affect seed germination and seedling growth and development. These noxious weeds co-occur with *H. venusta* at the Tumwater Canyon site and have become more widespread on the available habitat (J. Wentworth, *in litt.* 2001).

The species' habitat is threatened by plant succession in the absence of fire (D. Wertz, Northwest Ecosystem Alliance, *in litt.* 2000) and by competition with nonnative plants (R. Harrod, pers. comm., 1996, 2001; Ted Thomas, Service, pers. obs., 1995 through 1998), as well as from native trees and shrubs that have become established on the site. Other threats include the mass-wasting or erosion of soil that occurs on these unstable slopes and from highway maintenance activities. These erosion events (either small-scale surface erosion or large landslides) are not predictable in timing, frequency, or magnitude. However, large landslides have occurred within Tumwater Canyon in close proximity to the *Hackelia venusta* population. The last time a large landslide occurred, which was in 1992, the road was closed for emergency repairs by WDOT. The repairs undercut the slope and up to 50 *Hackelia venusta* plants were destroyed and removed from the habitat of Tumwater Canyon (R. Harrod, pers. comm., 2001).

The species previously occurred in the road ROW which, although maintained by WDOT, is Federal land. In the past, road salting and herbicide spraying were probable factors in reducing the vigor and number of *Hackelia venusta* in the ROW. Currently, WDOT maintenance crews rarely apply road salt and, when they do, they apply it in a diluted, 20:1 ratio with road sand (Luther Beaty, WDOT, pers. comm., 1995). Since 1998, however, WDOT has been using de-icers on the roadway during winter months. The disappearance of *H. venusta* along the roadcut and ROW corresponds to the WDOT's use of de-icers starting in 1998. We believe that the de-icers may be associated with the decline of individual plants in the ROW and we now consider it a threat to the species. The de-icer used by WDOT is called CalBan, a formulation of calcium chloride, which is a salt. Residue from the salts build up in the soil and are retained on soil particles. When plants emerge in the spring, the concentration of salt is greater in the soil than found in the plant, so any moisture that is in the plant or soil surrounding the plant is drawn to the calcium chloride

crystals, which causes the plant to wilt and die (J. Brickey, pers. comm., 2002).

Herbicides have also been applied in the past by WDOT, which sprayed the roadside vegetation. Overspray and splatter of herbicides may have contributed to the reduced number of *Hackelia venusta* plants in the population. WDOT has discontinued the use of herbicides in Tumwater Canyon (L. Beaty, pers. comm., 1995).

In the narrow confines of Tumwater Canyon, automobile emissions may continue to be a cause for reduced vigor to the *Hackelia venusta* population because ozone and oxides of sulphur and nitrate emitted from vehicle tailpipes negatively affect photosynthesis of plants (Forest Service 1979). In addition, several individual plants occur on level ground near the roadside turnout and are threatened with trampling and collecting.

The small number of individuals (about 500 plants) remaining in the sole population located in Tumwater Canyon makes *Hackelia venusta* vulnerable to extinction due to random events such as slope failure (mass-wasting or surface erosion) or drought. A single random environmental event could extirpate a substantial portion or all of the remaining individuals of this species and cause its extinction. Also, changes in gene frequencies within small, isolated populations can lead to a loss of genetic variability and a reduced likelihood of long-term viability (Franklin 1980; Soulé 1980; Lande and Barrowclough 1987; R. Carr, *in litt.* 2000).

We have carefully assessed the best scientific and commercial information available concerning the past, present, and future threats faced by *Hackelia venusta* in developing this final rule. Currently, only one known population of *H. venusta* exists. The plant is threatened by a long history of plant collection and the physical degradation of the habitat associated with people walking on the steep, easily eroded substrate where the species is found. Habitat modification associated with fire suppression, competition and shade from native shrubs and trees and nonnative noxious weeds, maintenance of the highway located near the population, poor seed development, low reproductive capacity, and incidental loss from human trampling, threaten the continued existence of this species. Also, the single, small population of this species is particularly susceptible to extinction from random environmental events such as rock slides. This species is in danger of extinction "throughout all or a significant portion of its range" (section 3(6) of the Act) and, therefore,

meets the Act's definition of endangered.

Critical Habitat

Critical habitat is defined in section 3 of the Act as (i) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species, and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by the species at the time it is listed in accordance with the provisions of section 4 of the Act, upon a determination that such areas are essential for the conservation of the species. "Conservation" means the use of all methods and procedures necessary to bring an endangered or threatened species to the point at which listing under the Act is no longer necessary.

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, we designate critical habitat at the time the species is determined to be endangered or threatened. Our regulations (50 CFR 424.12(a)(1)) state that the designation of critical habitat is not prudent when one or both of the following situations exist—(1) the species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or (2) such designation of critical habitat would not be beneficial to the species. We find that designation of critical habitat is not prudent for *Hackelia venusta*.

We are mindful that several court decisions have overturned determinations for a variety of species that designation of critical habitat would not be prudent (e.g., *Natural Resources Defense Council v. U.S. Department of the Interior* 113 F. 3d 1121 (9th Cir. 1997); *Conservation Council for Hawaii v. Babbitt*, 2 F. Supp. 2d 1280 (D. Hawaii 1998)). However, based on the standards provided in those judicial decisions, a not prudent critical habitat finding for *Hackelia venusta* is warranted.

Hackelia venusta consists of only one population made up of approximately 500 individual plants and cannot recolonize habitat quickly. Because this species occupies such a limited area, even a single person walking on the talus habitat where it occurs could cause significant damage to the species and its habitat that could lead to the extirpation of the entire population.

Increased visits to the population location, stimulated by critical habitat designation and related maps and publicity, even without deliberate collecting, could adversely affect the species due to the associated increase in trampling of its fragile habitat. We believe that the designation of critical habitat, and the required public dissemination of maps and descriptions of the population site, would significantly increase the degree of threat to this species. Publicity could generate an increased demand and intensify collecting pressure or facilitate opportunities for vandalism. This species has already been subjected to excessive collecting by collectors. Increased publicity and a provision of specific location information associated with critical habitat designation could result in increased collection from the population. Although the taking and reduction to possession of endangered plants from land under Federal jurisdiction is prohibited by the Act, the taking prohibitions are difficult to enforce. We believe the publication of critical habitat descriptions would make *H. venusta* more vulnerable to collectors and curiosity-seekers and would increase enforcement problems for the Forest Service, and we have documented evidence that collecting and other human disturbance have already detrimentally affected this species.

Our concerns of increased human threats to the species from the publication of maps of the population site are based on specific experience. Another federally listed mountain plant (*Hudsonia montana*) for which critical habitat was designated was severely impacted by collectors immediately after the maps were published. This collection happened even though this plant was not previously known to be desired by rare plant collectors and had never been offered for sale in commercial trade. Some of the collectors appeared in the local Forest Service district offices, with the critical habitat map from the local newspaper in their hands, asking directions to the site (Nora Murdock, Service, pers. comm., 2000). Such incidents are extremely difficult to document. The only reason we were able to do so in this case was because, for this very rare and restricted plant, every individual was mapped. When plants vanished from our permanent plots, we were able to find the carefully covered excavations where they had been removed. Otherwise, we would have only observed a precipitous crash in the populations without knowing that the cause was directly

attributable to collection, apparently stimulated by the publication of specific critical habitat maps. In the case of *Hackelia venusta*, a local radio station interviewed a professor from the University of Washington, Center for Urban Horticulture, which was fire bombed in spring, 2001. Apparently the professor repeated several times in the interview that propagated *H. venusta* plants were lost in the fire bombing. After this announcement, the local Forest Service Ranger District received requests to know the location of the plant (L. Malmquist, pers. comm., 2001). Also, a Tacoma newsreporter made several inquiries to our Western Washington Fish and Wildlife Office about visiting the plant population during the spring of 2001. We declined the request with the concern that additional news coverage would be detrimental to the species or its habitat.

It is our finding that the designation of critical habitat would increase threats to *Hackelia venusta*, and that a critical habitat designation would exacerbate these threats and possibly lead to extinction of the species; therefore a not prudent finding is warranted.

Because of the precarious status of the species, the small size of the only surviving population, the restricted range of the species, and the limited amount of suitable habitat available to the species, a Federal action subject to consultation under section 7 of the Act that triggers the standard for destruction or adverse modification of critical habitat for *H. venusta* would very likely also jeopardize the species' continued existence. Therefore, it is doubtful that additional protection would be provided to this species through the designation of critical habitat that would not already be provided through the jeopardy standard. We recognize that critical habitat designation in some situations may provide additional value to a species, for example, by identifying areas important for conservation. However, for *H. venusta*, we have weighed the potential benefits of designating critical habitat against the significant risks of doing so and find that the minor benefits of designating critical habitat do not outweigh the potential increased threats from collection and inadvertent habitat degradation caused by curiosity-seekers. Therefore, we have determined that the designation of critical habitat for *H. venusta* is not prudent.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Act include recognition, recovery actions,

requirements for Federal protection, and prohibitions against certain activities. Recognition through listing results in public awareness and conservation actions by Federal, State, and local agencies, private organizations, and individuals. The Act provides for possible land acquisition and cooperation with the States and requires that the Service carry out recovery actions for all listed species. The protection required of Federal agencies, and the prohibitions against certain activities involving listed plants are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened, and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a species proposed for listing, or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or destroy or adversely modify its critical habitat, if any has been designated. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with us.

Federal agencies whose actions may require consultation include the Forest Service, Federal Highway Administration, and U.S. Army Corps of Engineers (Corps). State highway activity, implemented by the State and partly funded by the Federal Government, includes highway maintenance activities such as roadside vegetation control, and may be subject to consultation under the Act. Forest Service activities that may require consultation under section 7 of the Act would include fire suppression, activities associated with fire suppression, timber harvest, and habitat restoration activities. The Corps may be required to consult with us on proposed actions planned on the Wenatchee River, which is adjacent and directly below the highway ROW. The distance from the base of the *Hackelia venusta* population to the Wenatchee River is less than 30 m (100 ft).

Listing *Hackelia venusta* as endangered will provide for the development of a recovery plan. Such a

plan would bring together Federal, State, and local efforts for the conservation of the species. The plan will establish a framework for agencies to coordinate activities and cooperate with each other in conservation efforts. The plan will set recovery priorities, assign responsibilities, and estimate costs of various tasks necessary to achieve conservation and survival of this species. Additionally, pursuant to section 6 of the Act, we will be able to grant funds to the State of Washington for management actions promoting the protection and recovery of this species.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to all endangered plants. All prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.61 for endangered plants, would apply. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to import or export, transport in interstate or foreign commerce in the course of a commercial activity, sell or offer for sale in interstate or foreign commerce, or remove the species from areas under Federal jurisdiction. In addition, for plants listed as endangered, the Act prohibits the malicious damage or destruction in areas under Federal jurisdiction and the removal, cutting, digging up, damaging, or destroying of such endangered plants in knowing violation of any State law or regulation, or in the course of any violation of a State criminal trespass law. Certain exceptions to the prohibitions apply to our agents and State conservation agencies.

Our policy, published in the **Federal Register** on July 1, 1994 (59 FR 34272), is to identify, to the maximum extent practicable, activities that likely would or would not be contrary to section 9 of the Act. The intent of this policy is to increase public awareness of the effect of the listing on proposed and ongoing activities within a species' range.

With respect to *Hackelia venusta*, based upon the best available information, the following actions would not be likely to result in a violation of section 9, provided these activities are carried out in accordance with existing regulations and permit requirements:

(1) Activities authorized, funded, or carried out by Federal agencies (e.g., grazing management, agricultural conversions, wetland and riparian habitat modification, flood and erosion control, residential development, recreational trail development, road construction, hazardous material containment and cleanup activities, prescribed burns, pesticide/herbicide

application, and pipeline or utility line construction crossing suitable habitat), when such activity is conducted in accordance with any biological opinion issued by us under section 7 of the Act;

(2) Activities on private lands that do not require Federal authorization and do not involve Federal funding, such as grazing management, agricultural conversions, flood and erosion control, residential development, road construction, and pesticide or herbicide application when consistent with label restrictions;

(3) Residential landscape maintenance, including the clearing of vegetation around one's personal residence as a fire break; and

(4) Casual, dispersed human activities (e.g., bird watching, sightseeing, photography, camping, hiking) in the habitat of the species.

With respect to *Hackelia venusta*, the following actions could result in a violation of section 9; however, possible violations are not limited to these actions alone:

(1) Unauthorized collecting of *Hackelia venusta* on Federal lands;

(2) Application of pesticides/herbicides in violation of label restrictions;

(3) Interstate or foreign commerce, import, or export of this species without a valid permit; and

(4) Removal or destruction of the species on Federal land, or on non-Federal land if done in knowing violation of Washington State law or regulations, or in the course of any violation of a Washington State criminal trespass law.

Questions regarding whether specific activities risk violating section 9 should be directed to our Western Washington Fish and Wildlife Office (see **ADDRESSES** section). The Act and 50 CFR 17.62 and 17.63 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered plants under certain circumstances. Such permits are available for scientific purposes or to enhance the propagation or survival of the species. Requests for copies of the regulations regarding listed species and general inquiries regarding prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Ecological Services, Permits Branch, 911 N.E. 11th Avenue, Portland, OR 97232-4181 (telephone 503/231-2063; facsimile 503/231-6243).

National Environmental Policy Act

We have determined that an Environmental Assessment or Environmental Impact Statement, as defined under the authority of the

National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

Paperwork Reduction Act

This rule does not contain any new collections of information that require approval by the Office of Management and Budget under the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*). This rule will not impose new record-keeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a

collection of information unless it displays a currently valid OMB Control Number. For additional information concerning permits and associated requirements for endangered plants, see 50 CFR 17.62 and 17.63.

References Cited

A complete list of all references cited in this document, as well as others, may be requested from our Western Washington Fish and Wildlife Office (see **ADDRESSES** section).

Author

The primary author of this final rule is Ted Thomas, Western Washington Fish and Wildlife Office (see **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and

recordkeeping requirements, Transportation.

Regulation Promulgation

Accordingly, § 17.12 of part 17, subchapter B of chapter I, Title 50 of the Code of Federal Regulations is amended, as set forth below.

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500, unless otherwise noted.

2. Amend § 17.12(h) by adding the following, in alphabetical order under FLOWERING PLANTS, to the List of Endangered and Threatened Plants.

§ 17.12 Endangered and threatened plants.

* * * * *
(h) * * *

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
FLOWERING PLANTS							
* <i>Hackelia venusta</i> ...	* Showy stickseed	* U.S.A. (WA)	* Boraginaceae- borage.	* E	* 722	* NA	* NA
*	*	*	*	*	*	*	*

Dated: January 30, 2002.
Marshall P. Jones, Jr.,
Acting Director, U.S. Fish and Wildlife Service.
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