DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AH56

Endangered and Threatened Wildlife and Plants; Removal of *Potentilla robbinsiana* (Robbins' cinquefoil) From the Federal List of Endangered and Threatened Plants

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), have determined that *Potentilla robbinsiana*, commonly called Robbins' cinquefoil, is no longer an endangered species pursuant to the Endangered Species Act of 1973 (Act), as amended. This determination is based on available data indicating that this species has recovered. The main population of the species currently has more than 14,000 plants, and the 2 transplant populations have reached or surpassed minimum viable population size. This action removes *Potentilla robbinsiana* from the List of Endangered and Threatened Plants and removes the designation of critical habitat.

This rule includes a proposed 5-year post-delisting monitoring plan as required for species that are delisted due to recovery. The plan will include monitoring of population trends of both natural and transplant populations.

DATES: This rule is effective September 26, 2002.

ADDRESSES: The administrative file for this rule is available for inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Northeast Regional Office, 300 Westgate Center Drive, Hadley, Massachusetts 01035 (telephone (413) 253–8628).

FOR FURTHER INFORMATION CONTACT: Diane Lynch at (413) 253–8628 or the above address.

SUPPLEMENTARY INFORMATION:

Background

Although its discovery was not formalized until 1840 (Torrey and Gray, 1840), the first recorded collection of *Potentilla robbinsiana* (Robbins' or dwarf cinquefoil) by Thomas Nuttall in 1824 generated a strong interest among botanists and others in this diminutive member of the rose family (*Rosaceae*). Initially, there was confusion as to its taxonomic status, and it was designated as a variety of various European cinquefoils, but it was eventually recognized as a distinct species (Rydberg, 1896).

Potentilla robbinsiana is a long-lived perennial herb. Its hairy three-part compound leaves are deeply toothed, and mature plants form a dense 2–4 centimeter (cm) (1–1.5 inch (in)) rosette. Individual plants develop a deep central taproot, which helps to anchor them and resists frost heaving. *Potentilla robbinsiana* is one of the first plants to bloom in the alpine zone where it is found, flowering soon after the snows recede, from late May to mid-June. Adult plants produce from 1 to 30, 5-petalled yellow flowers on individual stems. The achenes (fruits) mature by late July, and disperse on dry windy days. These seeds seldom disperse more than 20 cm (8 in) from the parent plant, which limits natural reestablishment (Kimball and Paul, 1986). The seeds remain dormant for at least one winter, and germination begins the following year during June and July. Although seed viability is generally high, seedling survival is low (Iszard-Crowley and Kimball, 1998).

Various experiments have shown that *Potentilla robbinsiana* produces seed asexually so that seedlings are genetically identical (Lee and Greene, 1986). This species has the chromosome number 49 that allows it to maintain itself through asexual reproduction, which partially explains the low genetic variability found within the sampled population (David O'Malley, personal communication, 2000).

Potentilla robbinsiana is endemic to the White Mountains of New Hampshire and is restricted to two small, distinct areas on lands administered by the White Mountain National Forest. Herbaria collections suggest that historically there may have been a number of small populations in close proximity to these two areas. Currently there are only two natural populations. Reports of occurrences outside of New Hampshire have been discounted (Cogbill, 1993), and records indicate that *Potentilla robbinsiana* has always had a very narrow geographic distribution.

The largest natural population of *Potentilla robbinsiana* occurs on Monroe Flats located just above treeline on a col (saddle) between Mt. Monroe and Mt. Washington in the Presidential Range. Within this small area (less than 1 hectare (ha) (2.5 acres (ac))), the population is well established with more than 14,000 plants at present. Considering its local abundance and density at this one location, we assume that some of the unique features of Monroe Flats are important habitat requirements for *Potentilla robbinsiana*. Monroe Flats (elev. 1,550 meters (m) (5,085 feet (ft.)) consists of an exposed low dome that is covered with alternating bands of relatively barren small-stoned terraces and thickly vegetated mats. Blowing winds keep the Monroe Flats mostly free of snow and ice throughout the winter, leaving the vegetation exposed to the abrasive action of blowing snow and ice, and desiccating winds. The moist, barren soils are also susceptible to frost disturbance from freeze-thaw cycles for much of the year. In this extreme environment of moderate solifluction (soil movement downslope) and exposed topography, *Potentilla robbinsiana* occupies a narrow niche: It is likely a poor competitor with other species, but is able to thrive in a harsh environment where few other species can survive (Cogbill, 1987).

The second extant natural population occurs on Franconia Ridge, 30 kilometers (km) (18.6 miles (mi)) to the west of the Monroe Flats population. Although still within the alpine zone, the habitat here is markedly different. A limited number of plants grow at a site on the south end of the Franconia Ridge in crevices along the side of a vertical cliff just below the ridgeline. Although records indicate that the Franconia population was never very large, it is likely that these few plants are the remnants of a larger population from more suitable habitat that previously existed along the top of the ridge. The habitat has long since eroded and the plants have disappeared due to hiking activity along a ridgeline trail.

Potentilla robbinsiana was listed as endangered on September 17, 1980, and critical habitat encompassing the Monroe Flats population was designated at that time. Overzealous specimen collecting and unregulated hiker disturbance were the reasons for listing. At the time, the extent of the Monroe Flats population was shrinking (Graber and Brewer, 1985), and the Franconia Ridge population was thought to be extirpated.

We approved a recovery plan for *Potentilla robbinsiana* in 1983 and revised it in 1991 (U.S. Fish and Wildlife Service 1991). We began recovery activities in 1979, focusing on the only known population at Monroe Flats. Important features of the recovery efforts for this species included: construction of a scree wall; signs to alert the public to stay on the trail; Educational posters at the Lake-of-the-Clouds hut; monitoring the use of the Crawford Path; and trail relocation to avoid disturbance. We subsequently rediscovered the natural Franconia

Ridge population in June of 1984, which was represented by a single known plant.

Prior to listing, there had been a number of attempts to establish transplant populations at approximately 20 locations throughout the White Mountains (Graber, 1980). Although some of these efforts showed signs of initial success, all but one eventually failed due to unsuitable habitat or because patches of suitable habitat were too small to support viable populations. The Appalachian Mountain Club's Research Department reviewed these efforts, and, using the lessons learned, narrowed recovery efforts to four potential sites as outlined in the updated 1991 recovery plan: Two used in the previous transplant efforts (Camel Patch and the Viewing Garden) and two new ones (Boott's Spur and an additional Franconia Ridge population).

Of the transplant populations created prior to this species' listing, one continues to persist. Camel Patch received an unknown number of transplants by Raymond E. Gerber from the 1980s to 1991 (records unavailable). The Appalachian Mountain Club inventoried this site starting in 1984 when they located 84 plants. Only one of the transplant zones in this habitat showed viable natural reproduction occurring. This population was monitored annually from 1984 to 1992 and again in 1995, with annual monitoring beginning again in 1998. Supplementation of this population began in 1999 with 6 transplants, which boosted this population to 23 adults, 60 juveniles, and 6 new transplant adults. Since 1999, an additional 31 transplants were done, bringing the population to 40 adults and 57 juveniles. The Viewing Garden had received 19 known adult transplants from about 1980 through 1997. Though the adults survived for some time, viable natural reproduction was problematic and these individuals died out over time.

Transplant efforts to new locations began in 1986 with the introduction of 160 plants over three years at the Boott's Spur site. The site showed some initial promise, but by 1991 mortality was 100%. Although the Boott's Spur location was recognized as suboptimal habitat and had failed in a previous transplant effort, another 27 plants were transplanted in 1995, but none survived after the first year. The new Franconia population was established in 1988 with 61 plants transplanted over 2 years and an additional 108 plants through 1996, the date of the last transplant efforts. Like the natural populations, this transplant population has fluctuated over the years, but now appears well established with over 337 plants counted in 2001 and good natural recruitment occurring.

Summary of Federal Actions

Section 12 of the Endangered Species Act of 1973 directed the Secretary of the Smithsonian Institution to prepare a report, within 1 year after passage of the Act, on those plants considered to be endangered, threatened, or extinct. This report, designated as House Document No. 94–51, was presented to Congress on January 9, 1975. On July 1, 1975, the Director of the Service published a notice in the **Federal Register** (40 FR 27823) of his acceptance of the report of the Smithsonian Institution as a petition within the context of section 4(c)(2) of the Act, and of his intention thereby to review the status of the plant taxa named within. On June 16, 1976, the Service published a proposed rulemaking in the **Federal Register** (41 FR 24523) to determine approximately 1,700 vascular plant species to be endangered species pursuant to section 4 of the Act. Comments on this proposal were summarized in the April 26, 1978, **Federal Register** publication of a final rule, which also determined 13 plants to be either endangered or threatened species (43 FR 17909). *Potentilla robbinsiana* was included in the Smithsonian's report, the July 1, 1975, notice of review, and the June 16, 1976, proposal.

The amendment of the Act in 1978 required that all proposals over 2 years old be withdrawn. A 1-year grace period was given to proposals already over 2 years old. On December 10, 1979, we published a notice withdrawing the June 16, 1976, proposal to list *Potentilla robbinsiana* (44 FR 70796).

Based on sufficient new information, we again proposed *Potentilla robbinsiana* for listing on March 24, 1980, and proposed its critical habitat for the first time (45 FR 19004). A public meeting was held on this proposal on April 28, 1980, in Concord, New Hampshire. On September 17, 1980, we published a final rule in the **Federal Register** (45 FR 61944) listing *Potentilla robbinsiana* as endangered and designating critical habitat.

On June 8, 2001, we proposed to remove *Potentilla robbinsiana* from the List of Endangered and Threatened Plants because the available data indicate that this species has recently met the goals for delisting. In our **Federal Register** notice (66 FR 30860), we requested that all interested parties provide information and comments on the status of this species.

Summary of Current Status

As mentioned in the ''Background'' section, *Potentilla robbinsiana* is endemic to alpine areas of the White Mountain National Forest. The species is limited in its distribution as it occupies a unique habitat within the alpine zone that is very restricted geographically. There are currently four populations of the species; three are considered viable (over 50 plants), Monroe Flats, Camel Patch transplant site, and the Franconia Ridge transplant site. One site, the natural Franconia Ridge site has a very limited range of habitat. This population continues to sustain itself. However, we believe it will never reach the 50 plants needed to be considered viable due to limited suitable habitat.

Table 1 shows the Monroe Flats census counts of the species. Although counts were undertaken in 1973, 1983, and 1992, the methodology used to count the plants differed. The most reliable comparison between the three prior censuses and the most recent census (1999) is the number of plants found that were greater than 14 millimeters (mm) (0.5 in.) in stem diameter. Comparing the number of plants greater than 14 mm in diameter for censuses in 1983, 1992, and 1999 clearly demonstrates that the Monroe Flats population has dramatically increased.

TABLE 1.—MONROE FLATS CENSUS COUNTS FOR *Potentilla robbinsiana*

Year	Number of plants with stems greater than 14 mm (0.55 in) in diameter	Increase from previous count (percent)
1973	1,801	
1983	1,547	–14
1992	3,368	118
1999	4,575	36

Both the Camel Patch and Franconia Ridge transplant populations have persisted for more than 10 years. Both have juvenile recruitment and successful second generation seedling establishment. Transplant and/or monitoring efforts for these populations continue on a near annual basis (Kimball, 1998). The high level of soil movement throughout Camel Patch makes much of the site unsuitable for transplant efforts, nevertheless a population located along the edge of the encircling vegetation is well established. The Franconia Ridge population has increased dramatically in recent years and is now well established.

An 11-year demographic study, funded by the Service, the U.S. Forest Service, and Appalachian Mountain Club, was conducted along four permanent transects within the Monroe Flats population. The purpose of this study, in part, was to determine a minimum viable population for the transplant populations centered on the survival of each life stage of the plant at the Monroe Flats population. The study recommended a minimum viable population of 50 plants (Iszard-Crowley and Kimball, 1998). Both the Camel Patch location with a current population of 97 plants (Table 2) and the Franconia transplant location with a current population of 337 plants (Table 3) meet this criterion.

TABLE 2.—RESULTS OF THE 1999–2001 CENSUSES OF THE CAMEL PATCH TRANSPLANT POPULATION

Year	Seedling	Juvenile < 14mm	Juvenile ≥ 14mm	Adults	Total # plants ≥ 14mm	Total
1999	0	43	23	21	44	87
2000	0	42	30	29	59	101
2001	0	27	30	40	70	97

TABLE 3.—RESULTS OF THE 1999–2001 CENSUSES OF THE FRANCONIA TRANSPLANT POPULATION

Year	Seedling	Juvenile < 14mm	Juvenile ≥ 14mm	Adults	Total # plants ≥ 14mm	Total
1999	1	284[a]		46	N/A[a]	331
2000	0	172	58	77	135	307
2001	0	179	83	75	158	337

[a] Size class data unavailable.

***Potentilla robbinsiana* Recovery**

In accordance with section 4(f)(1) of the Act, the Service is responsible for the development and implementation of recovery plans for all listed species, to the maximum extent practicable. The first Robbins' Cinquefoil Recovery Plan was completed in 1983, and featured two main objectives: (1) To protect the existing Monroe Flats colony, encouraging its expansion to previously occupied habitat; and (2) to establish self-maintaining populations in at least four additional potential habitats not occupied at the time.

To accomplish the first objective, a scree wall surrounding the Monroe Flats population was constructed and posted with ''closed to entry'' signs, and two hiking trails that had previously traveled through the Monroe Flats population were relocated away from the population. Plants have since been successfully transplanted back into the habitat where the trails had resulted in the localized demise of the plants, primarily at the highest elevation in the Monroe Flats population. The ability of seed to move downhill from this recolonized site should benefit the Monroe Flats population. In addition, personnel from the White Mountain National Forest and Appalachian Mountain Club continue to provide stewardship, enforcement, and educational resources on site.

Several tasks were necessary to meet the second objective of establishing four additional self-maintaining transplant populations: (1) Protocols were developed to monitor the Monroe Flats population to better understand its demographic trends and natural rates of recruitment and mortality, and to collect data to model minimum viable population size; (2) the natural Franconia Ridge population (rediscovered in 1984) was annually monitored; (3) micro-habitat components were identified and used to locate unoccupied, potentially suitable habitat; and (4) effective propagation and transplant techniques were developed. Transplant techniques varied over the years. However, the most successful efforts used 2-year-old plants germinated from seed, and transplanted with the soil media intact in mid-June to early July. Each year a portion of the seed collected for use in transplants is placed in cold storage at the New England Wildflower Society to establish a seed bank for this species.

As mentioned in the ''Background'' section, two of the transplant sites failed, Boott's Spur and the Viewing Garden. The other two transplant sites, Franconia and Camel Patch, are both considered viable populations with 331 plants and 87 plants respectively, in 1999. As of 2001, these populations increased to 337 plants and 97 plants respectively.

The Robbins' Cinquefoil Recovery Plan: First Update, published in 1991, retained recovery criteria for the protection of existing natural populations and establishing additional transplant populations, but also contained minor changes to incorporate the rediscovered natural Franconia population, and acknowledged that suitable additional unoccupied habitat may be a limiting factor. In addition to the protection of the natural populations, this plan determined that a historically occupied zone within the Monroe Flats should be recolonized. Transplant efforts began in 1996 to meet this objective, and successful juvenile recruitment has since been observed.

To delist *Potentilla robbinsiana*, long-term demographic evidence must show that the Monroe Flats population is stable or increasing in size. As mentioned in the ''Summary of Current Status'' section, comparing the number of plants greater than 14 mm in stem diameter for censuses in 1983, 1992, and 1999 clearly demonstrates that the Monroe Flats population has dramatically increased.

While the 1991 recovery plan calls for the establishment of four transplant populations, it also recognizes that suitable habitat may be a limiting factor, and requires only two of the four transplant populations to be viable. Introduction of plants to the Boott's Spur location has subsequently been dropped due to the unsuccessful transplant efforts resulting in 100% mortality. The Viewing Garden location also showed 100% mortality in 1998. There are no plans to reestablish a population at this location because the suitable habitat is very limited and cannot support more than a few individual plants that are unlikely to

persist under natural population fluctuations. Biologists familiar with this species are confident that little if any suitable habitat in the White Mountains remains to be discovered (K. Kimball, Appalachian Mountain Club, pers. comm. 2000). Therefore, given that the discovery of additional suitable habitat for the establishment of new transplant attempts is unlikely, recent efforts have focused on ensuring viable populations at the two remaining transplant locations, Camel Patch and Franconia Ridge. As stated in the ''Summary of Current Status'' section, research on the species has determined that a minimum viable population consists of 50 plants (Iszard-Crowley and Kimball, 1998). Both the Franconia transplant location with a current population of 337 plants and the Camel Patch location with a current population of 97 plants meet this criterion.

Summary of Issues and Recommendations

In the June 8, 2001, proposed rule (66 FR 30860) we requested that all interested parties provide information and comments on the status of *Potentilla robbinsiana* and the proposal to delist this species. The public comment period ended August 7, 2001. Announcements of the proposed rule were sent to Federal and State agencies, elected officials, interested private organizations and citizens, and local area newspapers.

We received a total of two written comments, one from an individual and one from an organization. The organization (Appalachian Mountain Club) supports the delisting proposal, while the individual did not support it. Comments are discussed below. In addition, we considered and incorporated, as appropriate, into the final rule all biological and commercial information obtained through the public comment period.

Issue 1: Both commenters mention that the more appropriate common name for the species is dwarf cinquefoil.

Our response: We agree that the current common name is dwarf cinquefoil. Throughout this document we refer to the species by using the Latin name *Potentilla robbinsiana*. The exception being, when referencing the recovery plans, where the formal title of the plans refers to the species as Robbins' cinquefoil. We continue to use the common name of Robbins' cinquefoil for this species since that was the common name under which this species was associated at the time of listing.

Issue 2: One commenter recommends that all future population counts should be for total population, not transect counts as suggested in the proposed rule.

Our response: We agree that a total population census using a grid sampling methodology would provide more consistent comparisons over time. For the 5-year post-delisting monitoring, a total population census will be used. However, as explained in the ''Summary of Current Status'' section, the most reliable comparison between the 3 prior censuses and the most recent census (1999) is the number of plants found that were greater than 14 mm (0.5 in.) in stem diameter.

Issue 3: One commenter was concerned that the proposed rule does not technically satisfy some of the downlisting and delisting criteria contained in the updated recovery plan.

Our response: As mentioned in the proposed rule, the downlisting and delisting objectives in the 1991 recovery plan update were based on the best information available at that time. The recovery plan states ''that approved recovery plans are subject to modification as dictated by new findings, changes in species status, and the completion of recovery tasks.'' Each recovery objective from the 1991 plan is addressed in the ''*Potentilla robbinsiana Recovery*'' section of this rule. This section lays out the recovery actions that have led to the decision to delist the species, even though not every objective was met. In addition, we have determined that none of the five listing factors identified in the Act remain a threat to *Potentilla robbinsiana.* The objectives identified during the recovery planning process provide a guide for measuring the success of recovery, but are not intended to be absolute prerequisites, and should not preclude a reclassification or delisting action if such action is otherwise warranted.

Issue 4: One commenter was concerned that the Service did not seek the review and concurrence from the ad hoc recovery group for *Potentilla robbinsiana.*

Our response: The ad hoc recovery group first met shortly after the listing of the species in 1980. At that time and up until the present, this group was never a formalized recovery team with members appointed by the Regional Director. This group was consulted at one time, but the Service never asked for a consensus on any matters. This group has not met in over a decade. The Service did seek scientific review and comment from all interested stakeholders during our public comment period associated with the proposed rule.

Issue 5: One commenter was concerned that the Service did not complete tasks 5.3 and 7 in the original recovery plan of 1983, and task 5.1 of the updated plan, prior to publishing the proposed rule.

Our response: We disagree. Task 5.3 of the original plan, ''Develop news releases, articles and maintain contact with interested groups,'' was not included in the updated plan of 1991. Task 7 of the original plan and task 5.1 of the updated plan are essentially the same: ''submit an annual report on all conservation activities and research findings.'' The Appalachian Mountain Club has submitted annual *Potentialla robbinsiana* progress reports consistently since 1984 to both the Service and the White Mountain National Forest. Additional reports including several updates on germination and transplanting of the species and a demographic analysis of *Potentialla robbinsiana* were also supplied to the Service and the White Mountain National Forest.

Issue 6: One commenter asked if the proposed rule received approval of the recovery team or was peer-reviewed by conservation biologists.

Our response: There is no recovery team for this species. Instead, the Service submitted the proposed rule to three organizations: the White Mountain National Forest, the Appalachian Mountain Club, and the New England Wild Flower Society, for scientific review. Scientists associated with these organizations, who are knowledgeable about *Potentilla robbinsiana's* status and biology, reviewed the proposed rule. Only the Research Department of the Appalachian Mountain Club chose to provide a written endorsement of the proposed rule. The State of New Hampshire's Natural Heritage Program also received a copy of the proposed rule, and has been an active participant in the recovery planning and efforts for this species.

Issue 7: One commenter was concerned that the proposed rule did not provide indication of active protection efforts from off-trail hikers at the Camel Patch population or from rock climbers at the natural Franconia Ridge population.

Our response: Surveys have yielded no evidence of trespass or disturbance to these populations. We, together with the Appalachian Mountain Club, monitor the transplant populations and the Franconia Ridge natural population on a near annual basis. It is recommended by the Appalachian Mountain Club, and the Service concurs, that the best long-term management for these populations is to

manage them, but not to draw attention to them. Unlike the Monroe Flats population, these three populations are generally unknown and less accessible. Attempts to manage trespass using scree walls, signage, or other means, may call more attention to these discrete populations than the current low-key strategy.

Issue 8: One commenter noted that transplanted subpopulations at the Monroe Flats population are not necessarily viable.

Our response: We consider the Monroe Flats population to be one population and do not identify subpopulations. Task 4.5 of the updated recovery plan directs efforts to recolonize extirpated historical sites in the essential Monroe Flats habitat. Rather than ensuring additional viable subpopulations within Monroe Flats, the purpose of this task was to expand the population to its historical spatial extent where possible. Transplant efforts on Monroe Flats have focused in areas where plants had been extirpated due to trampling. Substrate directly along the now discontinued section of the Crawford Path has been heavily impacted and is no longer suitable habitat. However, impacts on either side of the discontinued trail have been less significant, and have been the focus of transplant efforts, including the high-point on Monroe Flats known as the ''Dome.'' This location may play an important role as seed source for downslope areas since seeds rarely migrate far from the parent plant. The past impact from substrate compression makes the habitat suitability and future status of this part of the transplant area uncertain. However, recent transplant survival has been strong, and there is seedling and juvenile recruitment in these areas, which meets the stated recovery task. Regardless of the potential for long-term reestablishment within the extirpated areas, these plants represent less than one percent of the Monroe Flats population and do not affect the viability of the Monroe Flats population.

Issue 9: One commenter was concerned with the statement that there is no suitable unoccupied habitat left for the species, and considers this as self-fulfilling and thus tautological.

Our response: As stated in the proposed rule under the ''Background'' section, prior to listing there had been a number of attempts to establish transplant populations at approximately 20 locations throughout the White Mountains. In 1986, with the experience gained from previous efforts, the four most appropriate transplant sites were determined, and efforts began. Of these four locations, two persist today. Given this species' unique habitat needs, the small geographic extent of such habitat, and the fact that transplanting efforts occurred at over 20 sites, we feel that locating additional suitable habitat for new transplant attempts is unlikely.

Issue 10: One commenter questioned why, if the Camel Patch population is deemed viable, we continue to supplement it.

Our Response: Seeds are collected annually from the Monroe Flats population and shipped to the New England Wild Flower Society for future germination and propagation. In the past, plants reared from these seeds were transplanted at the Camel Patch and Franconia transplant populations to help establish viable populations. They were also transplanted at the Monroe Flats population, and continue to be in an effort to reestablish adult plants at a topographic high spot so that they can act as an additional seed source for the main population at this site. Currently, the only plants that are transplanted at the Camel Patch population are extra plants intended for the Monroe Flats annual transplant effort. These plants are strategically placed to allow seed to flow downhill of the habitat in an effort to physically expand this population.

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 listing, reclassifying, and delisting species on the Federal lists. A species may be listed if one or more of the five factors described in section 4(a)(1) of the Act threatens the continued existence of the species. A species may be delisted according to 50 CFR 424.11(d), if the best scientific and commercial data available substantiate that the species is neither endangered nor threatened (1) because of extinction, (2) because of recovery, or (3) because the original data for classification of the species were in error.

After a thorough review of all available information, we determined that substantial *Potentilla robbinsiana* recovery has taken place since listing in 1980. We have also determined that none of the five factors identified in section 4(a)(1) of the Act, and discussed below, are currently affecting the species in such a way that the species is endangered (in danger of extinction throughout all or a significant portion of its range) nor threatened (likely to become endangered in the foreseeable future throughout all or a significant portion of its range). These factors and their application to *Potentilla robbinsiana* are as follows:

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

Potentilla robbinsiana utilizes a substrate described as shallow loamy sand topped with a stony, pavement-like surface. This stony surface layer protects the soil from being either blown or washed away. The 1980 final listing rule determined that the plant and its habitat were damaged by trampling from hikers. Hiking through the habitat is unimpeded due to the lack of most vegetation. Because the plants are small, it is easy for hiker boots to crush adult, juvenile, and seedling plants.

Since listing, the threat from trampling has been reduced by rerouting trails and protecting habitat. The section of the Appalachian Trail that bisected the Monroe Flats population is referred to locally as the Crawford Path, named after Abel Crawford who constructed the path in 1819. In 1915, the Appalachian Mountain club constructed Lake of the Clouds Hut, 270 m (295 yards (yd)) to the north of the trail. The Crawford Path was relocated at this time to bring the trail by the Hut, and although the trail was no longer directly bisecting *Potentilla robbinsiana* habitat, it still went through the northwest corner of the critical habitat. In 1983, the Crawford Path and Dry River Trails were rerouted a second time in response to the Federal listing, to move the trails outside of the plant's critical habitat. A low scree wall was constructed in conjunction with the trail relocation, around the critical habitat, and has been particularly effective in places where the trail abuts critical habitat. Signs posted around the Monroe Flats population notify hikers that there is a federally listed species present and no admittance is allowed without a permit. These signs are replaced as needed. Hiker traffic and trespassers into the critical habitat were recorded by pressure plates during 1985 to assess the effectiveness of hiker management. The plates were operated from June through October 1985 and checked several times weekly. Of 4,286 hikers counted over 115 days the counters were functional, the trespass rate was 2 percent (Kimball and Paul, 1986). The target compliance level established by the 1983 recovery plan was 95 percent of the hikers not trespassing into the critical habitat, an objective that has been maintained or exceeded since 1981. Outreach has also been a strong recovery component for ensuring hiker compliance of no trespassing into the *Potentilla robbinsiana* habitat. A naturalist is

stationed at the Lake of the Clouds Hut throughout the summer. The Hut naturalist is available during the day to answer questions and give interpretive talks regarding *Potentilla robbinsiana.* The naturalist and other Hut staff are also instrumental in monitoring the Monroe Flats population for human disturbance.

In 1973, prior to listing, the Monroe Flats population contained approximately 1,801 individual plants larger than 14 mm (0.55 in). As of 1999, this population included approximately 4,575 individuals of similar size. This represents a greater than 250% increase in this population. Counting plants of all sizes (seedlings to adults) in 1999, the established population size was 14,195 individuals.

The second natural population is near the Appalachian Trail on Franconia Ridge. The locations of this population and the two transplant populations have been purposefully kept undisclosed and are presently out of the way of the average hiking public. Attempts to manage trespass using scree walls, signage, or otherwise, may call more attention to this population than the current low-key strategy.

Records indicate that the extant natural Franconia Ridge population was never very large. Nevertheless, it is considered to be a reproducing population, with 11 individual plants consisting of 3 adults and 8 juveniles as of 2001, and is being monitored regularly by the Appalachian Mountain Club.

The protection efforts in effect for the Monroe Flats population, the existence of two viable transplant populations, and the strategy to manage these two populations and the natural Franconia Ridge population, demonstrate that there is no longer a threat to the habitat of *Potentilla robbinsiana.*

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

The 1980 final listing identified that the collecting of specimens for herbaria probably contributed to the loss of *Potentilla robbinsiana* and possibly the cause for the extirpation of one of the Franconia sites (Steele, 1964). It was noted that over 40 herbarium sheets containing nearly 100 plants (6 percent of the known mature population at the time of listing) were counted in various New England herbaria (Graber, 1980). Cogbill's more recent paper (1993) documents the collection of over 850 plants in herbaria collections worldwide, which represents one of the most extensive collections known for a single species. In the late 1800s some collectors were selling alpine plants, specifically including *Potentilla robbinsiana,* to other collectors for 10 cents per sheet (Cogbill, 1993). However, commercial trade in the species has not occurred since the early 1900s and is not expected to occur in the future; import or export of this species also is not anticipated. Collection of material for herbaria has declined significantly due to scientists becoming more aware of the impacts of collecting on rare species. Monitoring of these sites does not indicate a problem with overcollection. Therefore, taking of *Potentilla robbinsiana* for these purposes is not considered to be a threat.

C. Disease and Predation

This species is not known to be threatened by disease or predation.

D. The Inadequacy of Existing Regulatory Mechanisms

Potentilla robbinsiana is currently afforded limited protection by the Endangered Species Act. Section 9 of the Act prohibits the removal and possession of endangered plants from lands under Federal jurisdiction and the malicious damage and destruction of endangered plants in such areas, and the damage or destruction of endangered plants from any other area in knowing violation of any State law or regulation, or in the course of a violation of State criminal trespass law. Section 7 of the Act requires Federal agencies to ensure that their actions do not jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat.

Section 7(a)(1) of the Act requires Federal agencies to carry out programs for the conservation of threatened and endangered species. The entire range of *Potentilla robbinsiana* occurs on Forest Service lands. Forest Service regulations prohibit removing, destroying, or damaging any plant that is classified as a threatened, endangered, rare or unique species (36 CFR 261.9). Currently the species is classified as a G1 species (critically imperiled because of extreme rarity) by the State of New Hampshire's Natural Heritage Program, and appears on the Forest Service's Region 9 (Northeast) list of ''species of concern.'' These rankings will not change once the species is delisted, thus the Forest Service regulations will remain in effect. On December 2, 1994, we and the Forest Service's White Mountain National Forest signed a Memorandum of Understanding (MOU) for the conservation of *Potentilla robbinsiana.* The MOU states that the Forest Service agrees to carry out specific management measures, with our assistance, both through the recovery period, and if and when *Potentilla robbinsiana* is removed from the list of endangered and threatened plants.

Potentilla robbinsiana does appear on the New Hampshire State list of endangered and threatened species, although State legislation currently offers it no protection. However, since this species is endemic to Federal lands administered by the White Mountain National Forest, which has committed to continuing its ongoing program to provide for the long-term conservation of this species, we have determined that there is adequate existing protection in place for this species.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

Recovery efforts have been directed toward protection and environmental education. A number of approaches have been used to educate the hiking community, the scientific community, and the public about *Potentilla robbinsiana*. Providing information to the public regarding the species' biology and management satisfies their curiosity and increases their willingness to participate in protection of this species. These efforts include a permanent display and presentations about *Potentilla robbinsiana* by the seasonal Appalachian Mountain Club naturalist at Lake of the Clouds Hut.

The 1980 final listing rule mentioned that *Potentilla robbinsiana* is vulnerable to the harsh climate in which it lives. The weather regime experienced by the species is highly variable from year to year. During demographic studies over the past 16 years, it has been observed that late frosts in June have the potential to damage flowers and greatly reduce the seed crop for that year. By virtue of a deep taproot, the species appears to be adapted to a moderate level of frost-heaving, a stress that may limit competing species. At the same time, it cannot tolerate frost-induced movement of more than 18 mm/yr (.71 in/yr), or frost action sufficient to produce stone stripes or other patterned ground (Cogbill, 1987). Overall, however, this species is now thriving in a very localized part of the alpine zone of the White Mountains, and adapts to the harsh climate conditions, where few other species survive.

In summary, we have carefully reviewed all available scientific and commercial data and conclude that the threats that caused the population of *Potentilla robbinsiana* to decline no longer pose a risk to the continued survival of the species. This determination is based on the best

available data indicating that *Potentilla robbinsiana* has recovered, primarily as a result of the following: (1) The two natural existing populations are protected from human disturbance, and the Monroe Flats population is considered viable and increasing; (2) the two transplant populations are considered viable; and (3) the Forest Service's commitment to continue ongoing programs to provide for the long-term conservation of this species regardless of its standing under the Endangered Species Act. This recovery indicates that the species is no longer endangered or likely to become endangered in the foreseeable future throughout all or a significant portion of its range. Therefore, the species no longer meets the Act's definitions of endangered or threatened. Under these circumstances, removal from the List of Endangered and Threatened Plants is appropriate.

Effects of This Rule

This final rule will remove the protections afforded to *Potentilla robbinsiana* under the Act. Furthermore, the critical habitat for this plant, one location in the White Mountain National Forest, New Hampshire (50 CFR 17.96(a)), will be removed. The prohibitions and conservation measures provided by the Act will no longer apply to this species. Therefore, taking, interstate commerce, import, and export of *Potentilla robbinsiana* will no longer be prohibited under the Act. In addition, Federal agencies will no longer be required to consult with us under section 7 of the Act to insure that any action they authorize, fund, or carry out, is not likely to jeopardize the continued existence of *Potentilla robbinsiana* or destroy or adversely modify designated critical habitat.

The take and use of *Potentilla robbinsiana* must comply with appropriate Forest Service regulations, since the entire population lies within the White Mountain National Forest in New Hampshire.

Future Conservation Measures

Section 4(g)(1) of the Act requires that the Secretary of the Interior, through the Service, implement a monitoring program in cooperation with the States for not less than 5 years for all species that have been recovered and delisted. The purpose of this requirement is to develop a program that detects the failure of any delisted species to sustain itself without the protective measures provided by the Act. If at any time during the 5-year monitoring program, data indicate that protective status under the Act should be reinstated, we can initiate listing procedures, including, if appropriate, emergency listing.

Monitoring

Our Northeast Region will coordinate with the Forest Service, the Appalachian Mountain Club, and State resource agencies to implement an effective 5-year monitoring program to track the population status of *Potentilla robbinsiana*. We will annually evaluate the effectiveness of ongoing conservation programs, including education, monitoring, and enforcement efforts, in order to detect and assess any new threats to the populations. To detect any changes in the status of *Potentilla robbinsiana*, we will use, to the fullest extent possible, information routinely collected by the Appalachian Mountain Club's Research Department and the Forest Service. During the fifth year of the 5-year monitoring period, a total population census of the Monroe Flats population will be conducted using a grid to further evaluate the stability and health of this population.

We believe that the two transplanted sites have reached viable population status. However, during the required 5-year monitoring period, transplanting at the Camel Patch site will continue when excess plants are available from the New England Wild Flower Society. The transplants will be used to fill sparse areas and expand the population.

If we determine at the end of the mandatory 5-year monitoring period, which shall include data from the fifth year population census of Monroe Flats, that recovery is complete, and factors that led to the listing of *Potentilla robbinsiana*, or any new factors, remain sufficiently reduced or eliminated, monitoring may be reduced or terminated. If data show that the species is declining or if one or more factors that have the potential to cause a decline are identified, we will continue monitoring beyond the 5-year period and may modify the monitoring program based on an evaluation of the results of the initial 5-year monitoring program, or reinitiate listing if necessary.

Executive Order 12866

This rule was not reviewed by the Office of Management and Budget (OMB) under Executive Order 12866.

Paperwork Reduction Act

The OMB regulations at 5 CFR part 1320, which implement provisions of the Paperwork Reduction Act, require Federal agencies to obtain approval from OMB before collecting information from the public. The OMB regulations at 5 CFR 1320.3(c) define a collection of information as the obtaining of information by or for an agency by means of identical questions proposed to, or identical reporting, record keeping, or disclosure requirements imposed on, 10 or more persons. Furthermore, 5 CFR 1320.3(c)(4) specifies that ''ten or more persons'' refers to the persons to whom a collection of information is addressed by the agency within any 12-month period. For purposes of this definition, employees of the Federal Government are not included.

This rule does not include any collection of information that requires approval by OMB under the Paperwork Reduction Act. *Potentilla robbinsiana* occurs entirely on lands administered by the Forest Service and only in one State, New Hampshire. The information needed to monitor the status of *Potentilla robbinsiana* following delisting will be collected primarily by a limited number of personnel from the Forest Service and the Appalachian Mountain Club. We do not anticipate a need to request data or other information from 10 or more persons during any 12-month period to satisfy monitoring information needs. If it becomes necessary to collect information from 10 or more non-Federal individuals, groups, or organizations per year, we will first obtain information collection approval from OMB.

National Environmental Policy Act

We have determined that we do not need to prepare an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act as amended. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

References Cited

A complete list of all references cited herein is available upon request from our Northeast Regional Office (see **ADDRESSES** section).

Author

The primary author of this rule is Diane Lynch, Endangered Species Biologist (see **ADDRESSES** section). Doug Weihrauch, staff scientist for the Appalachian Mountain Club Research Department, provided assistance with the summary of the biological record for this species.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulations Promulgation

For the reasons set out in the preamble, we hereby amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

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.

§ 17.12 [Amended]

2. Section 17.12(h) is amended by removing the entry for ''*Potentilla robbinsiana*, Robbins' cinquefoil'' under ''FLOWERING PLANTS'' from the List of Endangered and Threatened Plants.

§ 17.96 [Amended]

3. Section 17.96(a) is amended by removing the critical habitat entry for ''*Potentilla robbinsiana*, Robbins' cinquefoil,'' which is under Family Rosaceae.

Dated: June 26, 2002.

Steve Williams,

Director, Fish and Wildlife Service.

[FR Doc. 02–21704 Filed 8–26–02; 8:45 am]

BILLING CODE 4310–55–P