



Billing Code 4333-15

**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

**[Docket No. FWS-R3-ES-2018-0036; FXES111309BFLC0]**

**RIN 1018-BC80**

**Endangered and Threatened Wildlife and Plants; Removing *Trifolium stoloniferum* (Running Buffalo Clover) from the Federal List of Endangered and Threatened Plants**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), propose to remove the *Trifolium stoloniferum* (running buffalo clover) from the Federal List of Endangered and Threatened Plants, due to recovery. This determination is based on a thorough review of the best available scientific and commercial information, which indicates that the threats to the species have been eliminated or reduced to the point that it no longer meets the definition of an endangered or a threatened species under the Endangered Species Act of 1973, as amended (Act). We are seeking information and comments from the public regarding this proposed rule. We are also seeking comments on the draft post-delisting monitoring plan for running buffalo clover.

**DATES:** We will accept comments received or postmarked on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

Comments submitted electronically using the Federal eRulemaking Portal (see

**ADDRESSES**, below) must be received by 11:59 p.m. Eastern Time on the closing date. We must receive requests for public hearings, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES: Written comments:** You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal:

<http://www.regulations.gov>. In the Search box, enter FWS–R3–ES–2018–0036, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the Search panel on the left side of the screen, under the Document Type heading, click on the Proposed Rules link to locate this document. You may submit a comment by clicking on “Comment Now!”

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–R3–ES–2018–0036, U.S. Fish and Wildlife Service, MS: BPHC, 5275 Leesburg Pike, Falls Church, VA 22041-3803.

We request that you send comments only by the methods described above. We will post all comments on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see *Public Comments*, below, for more information).

*Document availability:* This proposed rule and draft post-delisting monitoring (PDM) plan referenced throughout this document, as well as supporting materials, are available on <http://www.regulations.gov> under Docket No. FWS–R3–ES–2018–0036 and on the Service’s Midwest Region website at

<https://www.fws.gov/midwest/endangered/plants/rbcl/index.html>. In addition, the supporting file for this proposed rule will be available for public inspection, by appointment, during normal business hours, at the Ohio Ecological Services Field Office, 4625 Morse Road, Suite 104, Columbus, OH 43230; telephone 614-416-8993.

**FOR FURTHER INFORMATION CONTACT:** Barbara Hosler, Ecological Services, Midwest Regional Office, 5600 American Blvd. West, Suite 900, Bloomington, MN 55437-1458, telephone 517-351-6326. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Relay Service at 800-877-8339.

**SUPPLEMENTARY INFORMATION:**

**Information Requested**

*Public Comments*

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from other concerned governmental agencies, Native American tribes, the scientific community, industry, or any other interested parties concerning this proposed rule. We particularly seek comments concerning:

- (1) Reasons we should or should not “delist” running buffalo clover (that is, remove the species from the List of Endangered and Threatened Plants (List));
- (2) New information concerning any threat (or lack thereof), including climate change, to running buffalo clover;
- (3) New information on any efforts by the States or other entities to protect or otherwise conserve running buffalo clover;

(4) New information concerning the historical and current status, range, distribution, and population size of running buffalo clover, including the locations of any additional populations of this species;

(5) Current or planned activities within the geographic range of running buffalo clover that may adversely affect or benefit the species; and

(6) Information pertaining to the requirements for post-delisting monitoring of running buffalo clover.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include. Please note that submissions merely stating support for or opposition to the action under consideration without providing supporting information, although noted, will not be considered in making a determination, as section 4(b)(1)(A) of the Act (16 U.S.C. 1531 et seq.) directs that determinations as to whether any species is an endangered or threatened species must be made “solely on the basis of the best scientific and commercial data available.”

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We request that you send comments only by the methods described in **ADDRESSES**.

If you submit information via <http://www.regulations.gov>, your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this

information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on <http://www.regulations.gov>.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <http://www.regulations.gov>, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Ohio Ecological Services Field Office (see **ADDRESSES**).

#### *Public Hearing*

Section 4(b)(5) of the Act provides for one or more public hearings on this proposal, if requested. We must receive your request, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by the date specified above in **DATES**. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings, as well as how to obtain reasonable accommodations, in the *Federal Register* and local newspapers at least 15 days before the hearing.

#### *Peer Review*

In accordance with our joint policy on peer review published in the *Federal Register* on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding scientific data and interpretations contained in this proposed rule. The purpose of peer review is to ensure that our determination is based on scientifically sound data, assumptions, and analyses. We will invite comment from the peer reviewers during this public comment period; these comments will be available along with other public comments in the docket for this proposed rule on <http://www.regulations.gov>.

## **Previous Federal Actions**

We published a final rule listing Running buffalo clover as an endangered species under the Act on June 5, 1987 (52 FR 21478). The Running Buffalo Clover Recovery Plan (Service 1989) was approved on June 8, 1989, and revised in 2007 (72 FR 35253, June 27, 2007).

Running buffalo clover was included in a cursory 5-year review of all species listed before January 1, 1991 (56 FR 56882). The 5-year review did not result in a recommendation to change the species' listing status. We completed comprehensive 5-year reviews of the status of running buffalo clover in 2008, 2011, and 2017 (Service 2008, 2011, 2017). These reviews recommended reclassification from endangered to threatened status, based on achievement of the recovery criteria at that time.

## **Species Information**

It is our intent to discuss only those topics directly related to the proposed delisting of running buffalo clover. For more information on the description, biology, ecology, and habitat of running buffalo clover, please refer to the final listing rule (52 FR 21478, June 5, 1987), the Running Buffalo Clover (*Trifolium stoloniferum*) Recovery Plan: First Revision (Service 2007, pp. 1–13), and the 5-year reviews for running buffalo clover, completed on November 19, 2008 (Service 2008, entire), May 6, 2013 (Service 2013, entire), and April 21, 2017 (Service 2017, entire). These documents will be available as supporting materials at <http://www.regulations.gov> under Docket No. FWS–R3–ES–2018–0036.

### *Taxonomy and Species Description*

Running buffalo clover is a member of the Fabaceae (pea) family. This short-lived perennial forms long runners (stolons) from its base and produces erect flowering stems, 10–30 centimeters (cm) (4–12 inches (in)) tall. The flower heads are round and large, 9–12 millimeters (mm) (0.3–0.5 in). Flowers are white, tinged with purple.

### *Distribution*

The known historical distribution of running buffalo clover includes Arkansas, Illinois, Indiana, Kansas, Kentucky, Missouri, Ohio, and West Virginia (Brooks 1983, pp. 346, 349). There were very few reports rangewide between 1910 and 1983. Prior to 1983, the most recent collection had been made in 1940, in Webster County, West Virginia (Brooks 1983, p. 349). The species was thought extinct until it was rediscovered in 1983, in West Virginia (Bartgis 1985, p. 426). At the time of listing in 1987, only one population was known to exist, but soon afterward, several additional populations were found in Indiana, Ohio, Kentucky, and West Virginia. Populations were rediscovered in the wild in Missouri in 1994 (Hickey 1994, p. 1). A single population was discovered in Pennsylvania in 2017 (Grund 2017).

Extant populations of running buffalo clover are known from 154 populations in three ecoregions, as described by Bailey (1998): Hot Continental, Hot Continental Mountainous, and Prairie. For recovery purposes, the populations are divided into three regions based on proximity to each other and overall habitat similarities. These regions are Appalachian (West Virginia, southeastern Ohio, and Pennsylvania), Bluegrass (southwestern Ohio, central Kentucky, and Indiana), and Ozark (Missouri). The majority of populations occur within the Appalachian and Bluegrass regions.

### *Habitat*

Running buffalo clover typically occurs in mesic (moist) habitats with partial to filtered sunlight and a prolonged pattern of moderate, periodic disturbance, such as grazing, mowing, trampling, selective logging, or flood-scouring. Populations have been reported from a variety of habitats, including mesic woodlands, savannahs, floodplains, stream banks, sandbars (especially where old trails cross or parallel intermittent streams), grazed woodlots, mowed paths (e.g., in cemeteries, parks, and lawns), old logging roads, jeep trails, all-terrain vehicle trails, skid trails, mowed wildlife openings within mature forest, and steep ravines. Running buffalo clover is often found in regions with limestone or other calcareous bedrock underlying the site, although limestone soil is not a requisite determining factor for the locations of populations of this species.

Sites that have not been disturbed within the last 20 years are unlikely to support running buffalo clover (Burkhart 2013, p. 158) because the species relies on periodic disturbances to set back succession and/or open the tree canopy to create and maintain the partial to filtered sunlight it requires. These disturbances can be natural (for example, tree falls and flood scouring) or anthropogenic (such as grazing, mowing, trampling, or selective logging) in origin. Although disturbances to the canopy cover may cause a temporary decline in running buffalo clover, populations usually increase 2 years later (Madarish and Schuler 2002, p. 127) and reach their highest density 14 years after disturbance (Burkhart 2013, p. 159). However, a complete loss of forest canopy can also be detrimental to running buffalo clover by allowing in too much sunlight and altering the microclimate.

### *Biology*

Substantial variability in the growth and development of running buffalo clover has been documented, but the plant structure usually includes rooted crowns (rosettes that are rooted into the ground) and stolons (above-ground creeping stems) that connect several rooted or unrooted crowns, which eventually separate to leave “daughter” plants. Because of this stoloniferous growth form, individual plants can be difficult to distinguish. The Running Buffalo Clover Recovery Plan defines an individual plant as a rooted crown (Service 2007, p. 1). Rooted crowns may occur alone or be connected to other rooted crowns by runners.

Flowers, which typically bloom between mid-May and June, are visited by a variety of bee species (*Apis* spp. and *Bombus* spp.) and are cross-pollinated under field conditions (Taylor *et al.* 1994, p. 1,099). Running buffalo clover is also self-compatible (capable of pollinating itself); however, it requires a pollinator to transfer the pollen from the anthers to the stigma (Franklin 1998, p. 29). Although it may set fewer seeds by self-pollination than by outcrossing, the selfed seed set may be adequate to maintain the species in the wild (Taylor *et al.* 1994, p. 1,097). Selfed seeds have been shown to germinate well and develop into vigorous plants (Franklin 1998, p. 39).

Seeds typically germinate during early spring (mid-March to early April) when temperatures are between 15 and 20 degrees Celsius (°C) (59–68 degrees Fahrenheit (°F)) during the day and 5 to 10°C (41–50°F) at night. Baskin (2004) suggested that spring temperature fluctuations appear to be a major dormancy breaker in natural populations of running buffalo clover.

Scarification may aid in seed germination and seed dispersal. Scarification of seeds by the digestive system of herbivores, historically believed to be bison, deer, elk, or

small herbivores such as rabbits or groundhogs, was likely a major event in natural populations (Thurman 1988, p. 4; Cusick 1989, pp. 475–476). Although deer are viable vectors for running buffalo clover seeds, the survival and germination rates of ingested seeds are low (Ford *et al.* 2003, pp. 426–427). Dispersal and establishment of new populations of running buffalo clover by white-tailed deer herbivory may not be significant (Ford *et al.* 2003, pp. 426–427). It appears that scarification accelerates the germination process, whereas natural germination may occur over time if the right temperature fluctuations occur (Service 2007, p. 9).

### *Genetics*

Genetic studies of running buffalo clover have shown relatively low levels of diversity and low levels of gene flow between populations, even between those separated by short distances (Hickey and Vincent 1992, p. 15). Crawford *et al.* (1998, entire) examined genetic variation within and among populations of running buffalo clover throughout its geographic range known at the time. They found slight geographic variation between the four areas examined (Kentucky, Missouri, Ohio-Indiana, and West Virginia) and concluded that much of the species' genetic diversity resides among populations, and small populations of running buffalo clover contribute as much to the total species' genetic diversity as large populations (Crawford *et al.* 1998, p. 88).

### **Conservation Measures**

The running buffalo clover recovery plan includes management recommendations for the species (Service 2007, p. 51). The recommendations include considerations for mowing, invasive plant control, and forest management. For sites that are actively managed, the frequency of management intervention to create and maintain suitable

habitat depends on the nature of the management action. Sites that are mowed may require mowing annually while selective logging happens on an 8- to 14-year interval. Selection of appropriate management techniques are dictated by the conditions at each running buffalo clover population. Management actions specifically for running buffalo clover are in place where the plant occurs on Federal lands in Kentucky and West Virginia, State lands in Kentucky, Missouri, Ohio, and West Virginia, and three privately-owned sites (Service 2017, pp. 21–24).

### **Recovery Implementation**

Section 4(f) of the Act directs us to develop and implement recovery plans for the conservation and survival of endangered and threatened species unless we determine that such a plan will not promote the conservation of the species. Under section 4(f)(1)(B)(ii), recovery plans must, to the maximum extent practicable, include “objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions of this section [section 4 of the Act], that the species be removed from the list.” However, revisions to the Federal List of Endangered and Threatened Plants (adding, removing, or reclassifying a species) must reflect determinations made in accordance with sections 4(a)(1) and 4(b) of the Act. Section 4(a)(1) requires that the Secretary determine whether a species is endangered or threatened because of one or more of five threat factors. Section 4(b) of the Act requires that the determination be made “solely on the basis of the best scientific and commercial data available.”

Therefore, recovery criteria should help indicate when we would anticipate that an analysis of the five threat factors under section 4(a)(1) would result in a determination that a species is no longer an endangered or threatened species because of any of the five

statutory factors. Thus, while recovery plans provide important guidance to the Service, States, and other partners on methods of enhancing conservation and minimizing threats to listed species and measurable objectives against which to measure progress towards recovery, they are not regulatory documents and cannot substitute for the determinations and promulgation of regulations required under section 4(a)(1) of the Act. A decision to revise the status of a species on, or to remove a species from, the Federal List of Endangered and Threatened Plants (50 CFR 17.12(h)) is ultimately based on an analysis of the best scientific and commercial data available to determine whether a species is no longer an endangered species or a threatened species, regardless of whether that information differs from the recovery plan.

There are many paths to accomplishing recovery of a species, and recovery may be achieved without all of the criteria in a recovery plan being fully met. For example, one or more criteria may be exceeded while other criteria may not yet be accomplished. In that instance, we may determine that the threats are minimized sufficiently and the species is robust enough to delist. In other cases, recovery opportunities may be discovered that were not known when the recovery plan was finalized. These opportunities may be used instead of methods identified in the recovery plan. Likewise, information on the species may be learned that was not known at the time the recovery plan was finalized. The new information may change the extent to which existing criteria are appropriate for recognizing recovery of the species. Recovery of a species is a dynamic process requiring adaptive management that may, or may not, follow all of the guidance provided in a recovery plan.

The revised recovery plan for running buffalo clover (Service 2007, p. 24) states that the ultimate goal of the recovery program is to delist running buffalo clover, that is, to remove the species from the Federal List of Endangered and Threatened Plants (50 CFR 17.12(h)). The plan provides three criteria for reclassifying running buffalo clover from endangered to threatened status (i.e., to “downlist” the species) and three criteria for delisting running buffalo clover. All of the downlisting criteria have been met since 2008 (Service 2008, pp. 3–4; Service 2011, pp. 3–4; Service 2017, pp. 3–5). The following discussion provides an assessment of the delisting criteria as they relate to evaluating the status of this species.

#### *Criterion 1 for Delisting*

Criterion 1 states that 34 populations, in total, are distributed as follows: 2 A-ranked, 6 B-ranked, 6 C-ranked, and 20 D-ranked populations across at least two of the three regions in which running buffalo clover occurs (Appalachian, Bluegrass, and Ozark). The number of populations in each rank is based on what would be required to achieve a 95 percent probability of the persistence within the next 20 years; this number was doubled to ensure biological redundancy across the range of the species. Rankings refer to the element occurrence (EO) ranking categories.

EO rankings, which integrate population size and habitat integrity, are explained in detail in the recovery plan (Service 2007, pp. 2–3). In summary, A-ranked populations are those with 1,000 or more naturally occurring rooted crowns; B-ranked populations have between 100 and 999 naturally occurring rooted crowns; C-ranked populations have between 30 and 99 naturally occurring rooted crowns; and D-ranked populations have between 1 and 29 naturally occurring rooted crowns.

Populations are currently distributed as follows: 16 A-ranked, 35 B-ranked, 44 C-ranked, and 59 D-ranked, and they occur in all three regions across the range of the species. Thus, we conclude that this criterion has been substantially exceeded.

#### *Criterion 2 for Delisting*

Criterion 2 states that for each A-ranked and B-ranked population described in Criterion 1, population viability analysis (PVA) indicates 95 percent probability of persistence within the next 20 years, or for any population that does not meet the 95 percent persistence standard, the population meets the definition of viable. For delisting purposes, viability is defined as: seed production is occurring; the population is stable or increasing, based on at least 10 years of censusing; and appropriate management techniques are in place.

Seven A-ranked and 13 B-ranked populations are considered viable, based on a PVA or 10 years of data. Thus, we conclude that this criterion has been exceeded.

#### *Criterion 3 for Delisting*

Delisting criterion 3 states that the land on which each of the 34 populations described in delisting criterion 1 occurs is owned by a government agency or private conservation organization that identifies maintenance of the species as one of the primary conservation objectives for the site, or the population is protected by a conservation agreement that commits the private landowner to habitat management for the species.

This criterion was intended to ensure that habitat-based threats for the species are addressed. Small populations (C- and D-ranked populations) were included because they contribute as much as large populations to the overall level of the species' genetic diversity, which is important for survival of the species as a whole.

Currently, 23 populations meet this criterion, as follows: 5 A-ranked, 7 B-ranked, 5 C-ranked, and 6 D-ranked. These include populations where land management prioritizes the needs of running buffalo clover, although written management plans are not in place. There are 6 more A- and B-ranked populations than required. Although these additional higher-ranked populations can count for lower-ranked populations, this criterion has still not been fully met. However, 60 additional populations occur on publicly-owned lands, such as national forests, State lands, and local parks, thereby minimizing threats from habitat loss and degradation. Thus, although this criterion is not met in the manner specifically identified in the recovery plan, we conclude that the intent of the criterion to ensure that sufficient populations were protected from threats into the future has been met.

### **Summary of Factors Affecting the Species**

Section 4 of the Act and its implementing regulations (50 CFR part 424) set forth the procedures for listing species, reclassifying species, or removing species from listed status. "Species" is defined by the Act as including any species or subspecies of fish or wildlife or plants, and any distinct vertebrate population segment of fish or wildlife that interbreeds when mature (16 U.S.C. 1532(16)). A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1) of the Act: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. We must consider these same five factors in delisting a species. We

may delist a species according to 50 CFR 424.11(d) if the best available scientific and commercial data indicate that the species is neither endangered nor threatened for the following reasons: (1) The species is extinct; (2) the species has recovered and is no longer endangered or threatened; and/or (3) the original scientific data used at the time the species was classified were in error.

A recovered species is one that no longer meets the Act's definition of endangered or threatened. Determining whether a species is recovered requires consideration of whether the species is still an endangered species or threatened species because of any of the five categories of threats specified in section 4(a)(1) of the Act. For species that are already listed as endangered or threatened species, this analysis of threats is an evaluation of both the threats currently facing the species and those that are reasonably likely to affect the species in the foreseeable future following the delisting or downlisting and the removal or reduction of the Act's protections.

In considering what factors might constitute threats, we must look beyond the exposure of the species to a particular factor to evaluate whether the species may respond to the factor in a way that causes actual impacts to the species. If there is exposure to a factor, but no response, or only a positive response, that factor is not a threat. If there is exposure to a factor and the species responds negatively, the factor may be a threat, and we attempt to determine how significant a threat it is. The threat is significant if it drives, or contributes to, the risk of extinction of the species such that the species warrants listing as an endangered species or a threatened species as those terms are defined by the Act. This does not necessarily require empirical proof of a threat. The combination of exposure and some corroborating evidence of how the species is likely impacted could

suffice. The mere identification of factors that could impact a species negatively is not sufficient to compel a finding that listing is appropriate; we require evidence that these factors individually or cumulatively are operative threats that act on the species to the point that the species meets the definition of an endangered species or threatened species under the Act. The following analysis examines all five factors currently affecting or that are likely to affect the running buffalo clover in the foreseeable future.

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

The revised recovery plan for running buffalo clover (Service 2007, p. 14) identified the major threats to this species throughout its range as habitat destruction, habitat succession, and invasive plant competition. Land development and the consequential loss of habitat can also be a threat to running buffalo clover. Because the species relies on periodic disturbances to set back succession and/or open the tree canopy to create and maintain the partial to filtered sunlight it requires, activities that interfere with natural disturbance processes can negatively affect populations of running buffalo clover. Conversely, activities that periodically set back natural succession can benefit the species.

Current logging practices may benefit running buffalo clover. At the Fernow Experimental Forest in north-central West Virginia, running buffalo clover is most often associated with skid roads in uneven-aged silvicultural areas (Madarish and Schuler 2002, p. 121). A study examining running buffalo clover abundance before and after logging suggests that populations may initially decrease after disturbance, but then rebound to higher than pre-disturbance levels (Madarish and Schuler 2002, p. 127).

In some populations it appears that both overgrazing and no grazing at all are threats to running buffalo clover. In Kentucky, overgrazing poses threats to running buffalo clover, but removal of cattle from clover populations has resulted in overshadowing and competition from other vegetation (White *et al.* 1999, p. 10). Periodic grazing at the Bluegrass Army Depot has provided the moderate disturbance needed to maintain running buffalo clover (Fields and White 1996, p. 14).

Nonnative species, such as bluegrass (*Poa pratensis*) and white clover (*Trifolium repens*), compete with running buffalo clover for available resources (Jacobs and Bartgis 1987, p. 441). Other nonnative species that affect running buffalo clover include Japanese stiltgrass (*Microstegium vimineum*), garlic mustard (*Alliaria petiolata*), Japanese honeysuckle (*Lonicera japonica*), Amur honeysuckle (*Lonicera maackii*), and multiflora rose (*Rosa multiflora*). Threats by invasive competition can be mediated by treating the invasive plants by hand removal, herbicide application, and/or mowing. Although nonnative species are widespread across the range of running buffalo clover, not all running buffalo clover sites are affected by invasive species. For example, 13 of the 31 sites (42 percent) in Ohio have one or more nonnative species present at varying densities, and 4 of those sites are managed for invasive species control.

The habitat needs of running buffalo clover on Federal, State, and locally-owned lands are included in plans or agreements for those lands. The Monongahela National Forest Land and Resource Management Plan (U.S. Forest Service 2011, pp. II-27–II-28) and Wayne National Forest Revised Land and Resource Management Plan (U.S. Forest Service 2006, pp. 2-22, D-16) both include habitat management and protection measures for running buffalo clover. The Bluegrass Army Depot in Kentucky protects and manages

running buffalo clover under an Endangered Species Management Plan (Floyd 2006, pp. 30–37), included as part of their Integrated Natural Resource Management Plan, and all running buffalo clover populations at the Army Depot are covered by these management actions (Littlefield 2017). A memorandum of understanding between the Ohio Historical Society, Ohio Division of Natural Areas and Preserves, and the U.S. Fish and Wildlife Service provides for running buffalo clover habitat protection and management. We expect that these plans would remain in place and habitat management will continue after delisting running buffalo clover.

In total, twenty-three populations are under some form of management that incorporates specific needs of running buffalo clover, and 60 additional populations occur on publicly-owned lands that prevent loss from development. Although the species benefits from active management, it does not appear to rely on management actions as demonstrated by the 46 populations that have been found over the last 10 years at unmanaged sites where natural processes are maintaining suitable habitat for running buffalo clover. For these reasons, threats from habitat destruction and modification have been reduced or are being adequately managed such that they are not affecting the species' viability.

#### Summary of Factor A

Habitat destruction, habitat succession, and invasive plant competition are the primary threats to running buffalo clover. However, these stressors have been reduced or are being adequately managed now and into the foreseeable future.

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

When the species was listed in 1987, overutilization for scientific or educational purposes was identified as a threat, given that only one population consisting of four individuals was known at the time (52 FR 21478; June 5, 1987). Today, with more than 150 populations known, collection for scientific or educational purposes is very limited and distributed among many populations and is no longer considered a threat (Service 2017, p. 17).

Running buffalo clover is listed as endangered or threatened under State laws in Missouri, Indiana, Ohio, and Kentucky. The laws in Ohio and Missouri prohibit commercial taking of listed plants. We are aware of only one unpermitted collection in 2015 when a population in West Virginia appeared to have been dug up and the main plant group removed (Douglas 2015). The purpose of the collection is unknown. Despite this one event, running buffalo clover is not known to be used for any commercial or recreational purposes, and we have no information that commercial or recreational collection will occur in the future.

#### Summary of Factor B

Running buffalo clover is not known to be used for any commercial or recreational purpose, and collection for scientific or educational purposes is limited. Based on available information, we do not consider there to be threats now or in the foreseeable future related to overutilization for commercial, recreational, scientific, or educational purposes.

#### *C. Disease or Predation*

At the time of listing in 1987, disease was predicted to threaten running buffalo clover (52 FR 21478; June 5, 1987). Jacobs and Bartgis (1987, p. 441) suggested that the

decline of this species may have partially centered on a pathogen introduced from the exotic white clover; however, no specific disease has been identified over the intervening years (Service 2008, p. 10). A number of viral and fungal diseases, including cucumber mosaic virus and the comovirus, are reported to have attacked the species in greenhouses at the Missouri Botanical Garden (Sehgal and Payne 1995, p. 320), but no evidence has been gathered showing these viruses' impact on running buffalo clover decline in the wild (Service 2008, p. 10).

Parasitism by root-knot nematodes (*Meloidogyne* spp.) is common in clovers and often limits productivity in cultivated clovers used as forage crops (Quesenberry *et al.* 1997, p. 270). Investigations have been conducted on the effects of root-knot nematodes on native North American clovers, including running buffalo clover. After inoculation of the parasite, running buffalo clover displayed high resistance to three of the four nematode species analyzed, and only an intermediate response to the fourth species of nematode (Quesenberry *et al.* 1997, p. 270). Thus, the threat from this parasite is not considered significant.

Herbivory by a variety of species has been reported for running buffalo clover. In Missouri, running buffalo clover plants are repeatedly grazed by rabbits, rodents, and slugs (Pickering 1989, p. 3). Similar observations have been made in Kentucky (Davis 1987, p. 11). The Fayette County, West Virginia population was eaten to the ground by a ground hog (*Marmota monax*), but more than a dozen rooted crowns were observed at the population the following year. White-tailed deer can also consume large amounts of running buffalo clover (Miller *et al.* 1992, p. 68-69).

Summary of Factor C

Although disease has been observed in running buffalo clover in greenhouses, no diseases are known to affect entire populations of the species in the wild. Populations appear to be capable of withstanding herbivory during the growing season. In sum, while disease or predation has had an occasional negative impact, most of these impacts do not appear to affect entire populations, or the impacts do not persist for any extended period of time. Based on available information, we do not consider there to be threats now or in the foreseeable future related to disease or predation.

#### *D. The Inadequacy of Existing Regulatory Mechanisms*

Under this factor, we examine whether the stressors identified within the other factors may be ameliorated or exacerbated by an existing regulatory mechanism. Section 4(b)(1)(A) of the Act requires the Service to take into account “those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species.” In relation to Factor D under the Act, we interpret this language to require the Service to consider relevant Federal, State, and Tribal laws, regulations, and other such binding legal mechanisms that may ameliorate or exacerbate any of the threats we describe in threats analyses under the other four factors, or otherwise enhance conservation of the species. Our consideration of these mechanisms is described in detail within our analysis of each of the factors (see discussion under each of the other factors).

For currently listed species, we consider the adequacy of existing regulatory mechanisms to address threats to the species absent the protections of the Act. Therefore, we examine whether other regulatory mechanisms would remain in place if the species

were delisted, and the extent to which those mechanisms will continue to help ensure that future threats will be reduced or minimized. In our discussion under Factors A, B, C, and E, we evaluate the significance of threats as mitigated by any conservation efforts and existing regulatory mechanisms. Where threats exist, we analyze the extent to which conservation measures and existing regulatory mechanisms address the specific threats to the species. Regulatory mechanisms, if they exist, may reduce or eliminate the impacts from one or more identified threats.

Twenty-three populations are specifically managed to provide for the species' habitat needs, and an additional 60 populations occur on publicly-owned lands where regulatory mechanisms now exist. These regulatory mechanisms include the Monongahela National Forest Land and Resource Management Plan, the Wayne National Forest Revised Land and Resource Management, the Bluegrass Army Depot's Endangered Species Management Plan, and a memorandum of understanding with the Ohio Historical Society, Ohio Division of Natural Areas and Preserves, and the U.S. Fish and Wildlife Service (see discussion under Factor A). These plans and agreements also provide for education and outreach efforts and surveying and monitoring for running buffalo clover. We expect that these plans and agreements would remain in place after delisting running buffalo clover.

Of the 154 extant populations of running buffalo clover, 74 (49%) are located on private land, with the remainder located on Federal, State, or local park land. Most of the privately-owned populations are on lands without specific regulatory mechanisms. Although running buffalo clover benefits from habitat management efforts, it is not dependent on active management and persists on sites without any regulatory mechanism

in place. Additionally, State protections in Ohio and Missouri prohibit commercial taking of listed plants although running buffalo clover is not known to be used for any commercial or recreational purposes (see discussion under Factor B).

#### Summary of Factor D

Regulatory mechanisms to provide for management and/or consideration of running buffalo clover are in place for 83 populations. Furthermore, the species has persisted on lands without specific regulatory mechanisms. Consequently, we find that existing regulatory mechanisms, as discussed above, will continue to address stressors to running buffalo clover absent protections under the Act.

#### *E. Other Natural or Manmade Factors Affecting Its Continued Existence*

Factor E requires the Service to consider any other factors that may be affecting running buffalo clover. Under this factor, we discuss small population size, inadequate seed dispersal, poor seed quality, and climate change.

#### Small Population Size

Long-term monitoring data suggest that running buffalo clover populations often display widely fluctuating population size. The cause for changes in population size may be due to disturbance, weather patterns, management strategy, natural succession, or other unknown factors. The cyclic nature of running buffalo clover and the high probability of small populations disappearing one year and returning a subsequent year, may lead to difficulty in protecting small populations. Regardless, small populations have displayed high levels of genetic diversity (Crawford *et al.* 1998, p. 88) that is important for survival of the species as a whole. Small population size is not a threat in and of itself.

#### Inadequate Seed Dispersal

Cusick (1989, p. 477) suggested that the loss of large herbivores, such as bison and white-tailed deer, after European settlement resulted in no effective means of dispersal remaining for running buffalo clover. Deer have now returned to pre-settlement numbers, but dispersal and establishment of new populations of running buffalo clover by white-tailed deer may not be significant (Ford *et al.* 2003, p. 427). With 154 occurrences of running buffalo clover now known, inadequate seed dispersal does not appear to be having population-level effects.

#### Poor Seed Quality

Although researchers have speculated that inbreeding depression may have contributed to the decline of running buffalo clover (Hickey *et al.* 1991, p. 315; Taylor *et al.* 1994, p. 1,099), selfed seeds have been shown to germinate well and develop into vigorous plants (Franklin 1998, p. 39). However, temporal variations in seed quality have been reported. Seed quality may be correlated with rainfall; quality decreases in years with unusually high rainfall (Franklin 1998, p. 38). With 154 occurrences of running buffalo clover now known, the impacts of poor seed quality do not appear to affect entire populations, nor do these impacts persist for any extended period of time.

#### Climate Change

Our current analyses under the Act include consideration of ongoing and projected changes in climate. The terms “climate” and “climate change” are defined by the Intergovernmental Panel on Climate Change (IPCC). “Climate” refers to the mean and variability of different types of weather conditions over time, with 30 years being a typical period for such measurements, although shorter or longer periods also may be used (IPCC 2007, p. 78). The term “climate change” thus refers to a change in the mean

or variability of one or more measures of climate (e.g., temperature or precipitation) that persists for an extended period, typically decades or longer, whether the change is due to natural variability, human activity, or both (IPCC 2007, p. 78). Various types of changes in climate can have direct or indirect effects on species. These effects may be positive, neutral, or negative, and they may change over time, depending on the species and other relevant considerations, such as the effects of interactions of climate with other variables (e.g., habitat fragmentation) (IPCC 2007, pp. 8–14, 18–19). In our analyses, we use our expert judgment to weigh relevant information, including uncertainty, in our consideration of various aspects of climate change.

The effects of climate change are expected to result in rising average temperatures throughout the range of running buffalo clover, along with more frequent heat waves and increased periods of drought (IPCC 2014, p. 10), which may affect growth of running buffalo clover. For example, a prolonged drought in Missouri in 2012 may have impacted a running buffalo clover population for the next 2 years as plants were not observed again until 2015 (McKenzie and Newbold 2015, p. 20).

High precipitation events are also expected to increase in number, volume of precipitation, and frequency in mid-latitude areas (IPCC 2014, p. 11). Several running buffalo clover populations are located within the vicinity of a stream. Infrequent high flow events create moderate disturbance, which may be beneficial for this species. But increasing the magnitude or frequency of high flow events may increase storm flows and intensify disturbance from flood events, which may create excessive disturbance and alter the habitat suitability for running buffalo clover.

According to IPCC, “most plant species cannot naturally shift their geographical ranges sufficiently fast to keep up with current and high projected rates of climate change on most landscapes” (IPCC 2014, p. 13). Shifts in the range of running buffalo clover as an adaptation to climate changes is unlikely, due to the limited dispersal of seeds, restriction to specific habitat types, and the lack of connection between most populations.

The effects of climate change may also result in a longer growing season and shorter dormant season, which may change flowering periods. For example, blossoms of running buffalo clover have been turning brown at the beginning of June (Becus 2016); and in 2016 and 2017, running buffalo clover plants in Ohio began blooming in April, which is the earliest this species had been observed blooming (Becus 2017). For some plant species, a change in flowering period may create an asynchrony between prime bloom time and when specific pollinators are available, resulting in a reduction in pollination and subsequent seed set. However, because running buffalo clover can be pollinated by a diversity of bee species, significant asynchrony with pollinators is not expected to occur.

#### Summary of Factor E

With their high levels of genetic diversity, small populations are important for survival of the species as a whole. Although inadequate seed dispersal and poor seed quality have been concerns in the past, they do not appear to affect entire populations, nor do their impacts persist for any extended period of time. Climate change presents a largely unknown influence on the species, with potential for negative and beneficial impacts. Populations of running buffalo clover occur within various ecoregions within the species’ range and are capable of recovering from stochastic events, such as droughts and

heavy precipitation and high stream flows. Running buffalo clover is not dependent on particular species of pollinators and appears adaptable to potential changes to pollinator communities. This indicates that populations will persist in the face of climate change.

### *Synergistic Effects*

Many of the stressors discussed in this analysis could work in concert with each other and result in a cumulative adverse effect to running buffalo clover, e.g., one stressor may make the species more vulnerable to other threats. However, most of the potential stressors we identified either have not occurred to the extent originally anticipated at the time of listing (Factors B, C, and D) or are adequately managed as described in this proposal to delist the species (Factors A and D). In addition, for the reasons discussed in this proposed rule, we do not anticipate stressors to increase on publicly-owned lands or lands that are managed for the species.

Synergistic interactions are possible between effects of climate change and effects of other threats, such as nonnative plant invasion. However, it is difficult to project how the effects of climate change will affect interaction or competition between species. Uncertainty about how different plant species will respond under a changing climate makes projecting possible synergistic effects of climate change on running buffalo clover too speculative. However, the increases documented in the number of populations since the species was listed do not indicate that cumulative effects of various activities and stressors are affecting the viability of the species at this time or into the future.

### **Determination**

Section 4 of the Act (16 U.S.C. 1533), and its implementing regulations at 50 CFR part 424, set forth the procedures for determining whether a species is an

endangered species or threatened species and should be included on the Federal Lists of Endangered and Threatened Wildlife and Plants. The Act defines an endangered species as any species that is “in danger of extinction throughout all or a significant portion of its range” and a threatened species as any species “that is likely to become endangered throughout all or a significant portion of its range within the foreseeable future.”

The Act does not define the term “foreseeable future.” For this proposed rule, our forecast of future impacts is based on a review of the period of available data for each threat and, when possible, a projection of the situation at least for a similar time period into the future. Natural succession from open to dense canopy in forests within the range of running buffalo clover occurs over a 30- to 40-year time span, depending on the dominant species and aspect of the site. The 1989 running buffalo clover recovery plan (Service 1989, pp. 4–5) indicates that invasive species were present at an Indiana population and that garlic mustard was abundant in unmanaged areas at a Kentucky population. In addition, garlic mustard was identified as being present at multiple Ohio populations in 1989. Therefore, many of the significant invasive species have been present within the range of running buffalo clover for more than 25 years. Further, we can extrapolate trends from the past 30 years that running buffalo clover has been listed as endangered. Thus, a timeframe of 25–30 years is reasonable as the foreseeable future for running buffalo clover.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to running buffalo clover. The number of known running buffalo clover populations has increased from 1 at the time of listing to 154 currently. New populations continue to be found, and the known range has

expanded most recently to include Pennsylvania. Although we are not relying on it for our analysis, we recognize that it is reasonable to conclude that there may be additional populations of which we are not yet aware.

The main threat at many sites is habitat destruction, habitat succession, and competition with nonnative, invasive species (Factor A). Management to benefit running buffalo clover has been implemented since the time of listing and has shown to be effective. Twenty-three populations are under some form of management that addresses the needs of running buffalo clover. Because most managed populations occur on publicly-owned lands, we expect management will continue in the foreseeable future. Delisting Criterion 3 from the recovery plan was intended to ensure that habitat-based threats for the species are addressed. Although this criterion has not been met as specified in the recovery plan, we believe that its intention has been met between the 23 sites managed specifically for the conservation of the species plus the 60 additional locations on Federal and State lands. Additionally, the discovery of new populations at unmanaged sites indicates that the species does not wholly rely on management to maintain populations as we believed when the recovery criterion was drafted. The 23 populations currently under management in conjunction with the 60 other populations on publicly-owned lands are sufficient to maintain the species' viability now and into the foreseeable future.

During our analysis, we found that other factors believed to be threats at the time of listing—including overutilization for commercial, recreational, scientific, or educational purposes (Factor B), disease and predation (Factor C), and inbreeding depression and poor seed quality and dispersal (Factor E)—are no longer considered

threats, and we do not expect any of these conditions to substantially change into the foreseeable future. Since listing, we have become aware of the potential for the effects of climate change (Factor E) to affect all biota, including running buffalo clover. While available information in the most recent 5-year review indicates that running buffalo clover may be responding to a change in temperatures or precipitation patterns, the lack of a declining trend in running buffalo clover populations suggests the effects of ongoing climate change are not a threat to the species within the foreseeable future.

Thus, after assessing the best scientific and commercial data available and having considered the individual and cumulative impact of threats on this species, we conclude that running buffalo clover is not in danger of extinction throughout all of its range, nor is it likely to become so within the foreseeable future.

### **Significant Portion of the Range Analysis**

Having determined that running buffalo clover is not in danger of extinction, or likely to become so, throughout all of its range, we next consider whether there are any significant portions of its range in which running buffalo clover is in danger of extinction or likely to become so. Under the Act and our implementing regulations, a species may warrant listing if it is an endangered species or a threatened species. The Act defines “endangered species” as any species which is “in danger of extinction throughout all or a significant portion of its range,” and “threatened species” as any species which is “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” On July 1, 2014, we published a final policy interpreting the phrase “significant portion of its range” (SPR) (79 FR 37578). The final policy states that (1) if a species is found to be endangered or threatened throughout a significant

portion of its range, the entire species is listed as an endangered species or a threatened species, respectively, and the Act's protections apply to all individuals of the species wherever found; (2) a portion of the range of a species is "significant" if the species is not currently endangered or threatened throughout all of its range, but the portion's contribution to the viability of the species is so important that, without the members in that portion, the species would be in danger of extinction, or likely to become so in the foreseeable future, throughout all of its range; (3) the range of a species is considered to be the general geographical area within which that species can be found at the time the Service or the National Marine Fisheries Service makes any particular status determination; and (4) if a vertebrate species is endangered or threatened throughout an SPR, and the population in that significant portion is a valid distinct population segment (DPS), we will list the DPS rather than the entire taxonomic species or subspecies.

The SPR policy is applied to all status determinations, including analyses for the purposes of making the listing, delisting, and reclassification determinations. However, we acknowledge the recent adverse ruling by the United States District Court for the Northern District of California, which has vacated the "significant portion" part of the Services' SPR Policy (*Desert Survivors, et al. v. U.S. Department of the Interior, et al.*, No. 16-cv-01165-JCS (Northern District of California, Aug. 24, 2018)). The procedure for analyzing whether any portion is an SPR is similar, regardless of the type of status determination we are making. The first step in our analysis of the status of a species is to determine its status throughout all of its range. If we determine that the species is in danger of extinction, or likely to become so in the foreseeable future, throughout all of its range, we list the species as an endangered (or threatened) species, and no SPR analysis

will be required.

When we conduct an SPR analysis, we first identify any portions of the species' range that warrant further consideration. The range of a species can theoretically be divided into portions in an infinite number of ways. However, there is no purpose to analyzing portions of the range that are not reasonably likely to be significant and either endangered or threatened. To identify only those portions that warrant further consideration, we determine whether there is substantial information indicating that (1) the portions may be significant and (2) the species may be in danger of extinction in those portions or likely to become so within the foreseeable future. We emphasize that answering these questions in the affirmative is not a determination that the species is endangered or threatened throughout a significant portion of its range; rather, it is a step in determining whether a more detailed analysis of the issue is required. In practice, a key part of this analysis is whether the threats are geographically concentrated in some way. If the threats to the species are affecting it uniformly throughout its range, no portion is likely to warrant further consideration. Moreover, if any concentration of threats applies only to portions of the range that clearly do not meet the biologically based definition of "significant" (i.e., the loss of that portion clearly would not be expected to increase the vulnerability to extinction of the entire species), then those portions will not warrant further consideration.

If we identify any portions that may be both (1) significant and (2) endangered or threatened, we engage in a more detailed analysis. The identification of an SPR does not create a presumption, prejudgment, or other determination as to whether the species in that identified SPR is in danger of extinction or likely to become so. We must go through

a separate analysis to determine whether the species is in danger of extinction or likely to become so in the SPR. To determine whether a species is endangered or threatened throughout an SPR, we will use the same standards and methodology that we use to determine if a species is endangered or threatened throughout its range.

Depending on the biology of the species, its range, and the threats it faces, it may be more efficient to address either the significance question first, or the status question first. Thus, if we determine that a portion of the range is not “significant,” we do not need to determine whether the species is endangered or threatened there; if we determine that the species is not endangered or threatened in a portion of its range, we do not need to determine if that portion is “significant.”

Running buffalo clover does not exhibit any substantial differences in morphology or other factors in any portions of its range. The identified threats have been reduced or are being adequately managed across the species’ range, and no portions of the range retain elevated threat levels. There is no indication that any portion of the species’ range is so important that its loss would cause the entire species to become endangered or threatened. For these reasons, we conclude that running buffalo clover is not in danger of extinction, or likely to become so within the foreseeable future, throughout a significant portion of its range.

### **Effects of This Rule**

The Act sets forth a series of general prohibitions and exceptions that apply to all endangered plants. It is 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

and reduce running buffalo clover to possession from areas under Federal jurisdiction. Section 7 of the Act requires that Federal agencies consult with us to ensure that any action authorized, funded, or carried out by them is not likely to jeopardize the species' continued existence. If this proposed rule is made final, it would revise 50 CFR 17.12 to remove running buffalo clover from the Federal List of Endangered and Threatened Plants, and these prohibitions would no longer apply. Because critical habitat has not been designated for this taxon, this rule, if made final, would not affect 50 CFR 17.96.

### **Post-delisting Monitoring**

Section 4(g)(1) of the Act requires us, in cooperation with the States, to implement a monitoring program for not less than 5 years for all species that have been recovered and delisted. The purpose of this requirement is to verify that a species remains secure from risk of extinction after it has been removed from the protections of the Act. The monitoring is designed to detect the failure of any delisted species to sustain itself without the protective measures provided by the Act. If, at any time during the monitoring period, data indicate that protective status under the Act should be reinstated, we can initiate listing procedures, including, if appropriate, emergency listing under section 4(b)(7) of the Act. Section 4(g) of the Act explicitly requires us to cooperate with the States in development and implementation of post-delisting monitoring programs, but we remain responsible for compliance with section 4(g) of the Act and, therefore, must remain actively engaged in all phases of post-delisting monitoring. The States within the species' range are providing information on proposed management guidelines as well as future monitoring protocols. We also seek active participation of other entities that are expected to assume responsibilities for the species' conservation post-delisting.

### *Post-delisting Monitoring Plan Overview*

We have prepared a draft PDM plan for running buffalo clover. The draft plan discusses the current status of the taxon and describes the methods proposed for monitoring if the taxon is removed from the Federal List of Endangered and Threatened Plants. The draft plan: (1) Summarizes the status of running buffalo clover at the time of proposed delisting; (2) describes frequency and duration of monitoring; (3) discusses monitoring methods and potential sampling regimes; (4) defines what potential triggers will be evaluated for additional monitoring; (5) outlines reporting requirements and procedures; and (6) proposes a schedule for implementing the PDM plan and defines responsibilities. It is our intent to work with our partners towards monitoring the recovered status of running buffalo clover. We seek public and peer reviewer comments on the draft PDM plan, including its objectives and procedures (see **Information Requested**, above), with publication of this proposed rule. The draft PDM plan is available at <http://www.regulations.gov> under Docket No. FWS–R3–ES–2018–0036. You can submit your comments on the draft PDM plan by one of the methods listed above under **ADDRESSES**.

### **Required Determinations**

#### *Clarity of the Rule*

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;

- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in **ADDRESSES**. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

*National Environmental Policy Act (42 U.S.C. 4321 et seq.)*

We determined that we do not need to prepare environmental assessments and environmental impact statements, as defined under the authority of the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*), in connection with regulations adopted pursuant to section 4(a) of the Act. We published a notice outlining our reasons for this determination in the *Federal Register* on October 25, 1983 (48 FR 49244).

*Government-to-Government Relationship with Tribes*

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities,

and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes. We are not aware of running buffalo clover occurring on any tribal lands.

### **References Cited**

A complete list of references cited in this rulemaking is available on the Internet at <http://www.regulations.gov> under Docket No. FWS-R3-ES-2018-0036, or upon request from the Ohio Ecological Services Field Office, 4625 Morse Road, Suite 104, Columbus, OH 43230; telephone 614-416-8993.

### **Authors**

The primary authors of this proposed rule are the staff members of the Ohio Ecological Services Field Office and the Midwest Regional Office in Bloomington, Minnesota.

### **List of Subjects in 50 CFR Part 17**

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

### **Proposed Regulation Promulgation**

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

### **PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS**

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

AUTHORITY: 16 U.S.C. 1361-1407; 1531-1544; and 4201-4245, unless otherwise noted.

**§ 17.12 [Amended]**

2. Amend § 17.12(h) by removing the entry for “*Trifolium stoloniferum*” under FLOWERING PLANTS from the List of Endangered and Threatened Plants.

Dated: March 19, 2019

Margaret E. Everson  
Principal Deputy Director,  
U.S. Fish and Wildlife Service,  
Exercising the Authority of the Director,  
U.S. Fish and Wildlife Service  
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