DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R6–ES–2009–0081]
[MO 92210-0-0008]

Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition to List Sprague's Pipit as Endangered or Threatened Throughout Its Range

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of 12–month petition finding.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce a 12–month finding on a petition to list the Sprague's pipit (*Anthus spragueii*) as endangered or threatened and to designate critical habitat under the Endangered Species Act of 1973, as amended (ESA). After review of all available scientific and commercial information, we find that listing the Sprague's pipit as endangered or threatened is warranted. However, listing the Sprague's pipit is currently precluded by higher priority actions to amend the Lists of Endangered and Threatened Wildlife and Plants. Upon publication of this 12-month petition finding, we will add the Sprague's pipit to our candidate species list. We will develop a proposed rule to list Sprague's pipit as our priorities allow. We will make any determination on critical habitat during development of the proposed listing rule. In the interim period, we will address the status of the candidate taxon through our annual Candidate Notice of Review (CNOR).

DATES: The finding announced in this document was made on September 15, 2010.

ADDRESSES: This finding is available on the Internet at *http://www.regulations.gov* at Docket Number **FWS–R6–ES–2009–0081**. Supporting documentation we used in preparing this finding is available for public inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, North Dakota Field Office, 3425 Miriam Avenue, Bismarck, ND 58501. Please submit any new information, materials, comments, or questions concerning this finding to the above street address.

FOR FURTHER INFORMATION CONTACT: Jeffrey Towner, Field Supervisor, North Dakota Field Office (see **ADDRESSES**); by telephone at 701-250-4481; by facsimile at 701-355-8513; or by postal mail to: 3425 Miriam Ave. Bismarck, ND 58501. If you use a telecommunications device for the deaf (TDD), please call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Background

Section 4(b)(3)(B) of the ESA (16 U.S.C. 1531 *et seq.*) requires that, for any petition to revise the Federal Lists of Threatened and Endangered Wildlife and Plants that contains substantial scientific or commercial information that listing a species may be warranted, we make a finding within 12 months of the date of receipt of the petition. In this finding, we determine whether the petitioned action is: (a) Not warranted, (b) warranted, or (c) warranted, but immediate proposal of a regulation implementing the petitioned action is precluded by other pending proposals to determine whether species are endangered or threatened, and expeditious progress is being made to add or remove qualified species from the Federal Lists of Endangered and Threatened Wildlife and Plants. Section 4(b)(3)(C) of the ESA requires that we treat a petition for which the requested action is found to be warranted but precluded as though resubmitted on the date of such finding, that is, requiring a subsequent finding to be made within 12 months. We must publish these 12–month findings in the **Federal Register**.

Previous Federal Actions

On October 10, 2008, we received a petition dated October 9, 2008, from WildEarth Guardians, requesting that we list the Sprague's pipit as endangered or threatened under the ESA and designate critical habitat. Included in the petition was supporting information regarding the species' taxonomy and ecology, historical and current distribution, present status, and actual and potential causes of decline. We acknowledged the receipt of the petition in a letter to WildEarth Guardians, dated December 5, 2008. In that letter, we also stated that an emergency regulation temporarily listing the species under section 4(b)(7) of the ESA was not necessary. We also stated that we planned to complete the 90–day finding for this species in Fiscal Year (Fiscal Year) 2009. On January 28, 2009, we received a 60–day notice of intent (NOI) to sue from the petitioner stating that the Service was in violation of the ESA by failing to take action under section 4(b)(3)(A) of the ESA. On August 20, 2009, the petitioner filed a complaint on the Service's failure to complete the 90–day finding.

We published the 90–day finding in the **Federal Register** on December 3, 2009 (74 FR 63337). On May 19, 2010, the Service and WildEarth Guardians entered into a settlement agreement. According to the agreement, the Service will submit a 12–month finding to the **Federal Register** on or before September 10, 2010. This notice constitutes the 12–month finding on the October 9, 2008, petition to list the Sprague's pipit as endangered or threatened.

Species Information

Taxonomy and Species Description

The Sprague's pipit is a small passerine of the family Motacillidae, genus *Anthus,* endemic to the Northern Great Plains (Robbins and Dale 1999, p. 1). It was first described by Audubon (1844, pp. 334-336). It is one of the few bird species endemic to the North American prairie. The closest living relative is believed to be the yellowish pipit (*A. lutescens*) of South America (Robbins and Dale 1999, p. 9).

The Sprague's pipit is about 10 to 15 centimeters (cm) (3.9 to 5.9 inches (in.)) in length, and weighs 22 to 26 grams (g) (0.8 to 0.9 of an ounce (oz)), with buff and blackish streaking on the crown, nape, and underparts. Males and females are similar in appearance. The Sprague's pipit has a plain buffy face with a large eye-ring. The bill is relatively short, slender, and straight, with a blackish upper mandible. The lower mandible is pale with a blackish tip. The wings and tail have two indistinct wing-bars, and the outer retrices (tail feathers) are mostly white (Robbins and Dale 1999, p. 3-4). Juveniles are slightly smaller, but similar to adults, with black spotting rather than streaking (Robbins and Dale 1999, p. 3).

Habitat Description and Characteristics

Sprague's pipits are strongly tied to native prairie (land which has never been plowed) throughout their life cycle (Owens and Myres 1973, pp. 705, 708; Davis 2004, pp. 1138-1139; Dechant *et al.* 1998, pp. 1-2; Dieni *et al.* 2003, p. 31; McMaster *et al.* 2005, p. 219). They are rarely observed in cropland (Koper *et al.* 2009, p. 1987; Owens and Myres 1973, pp. 697, 707; Igl *et al.* 2008, pp. 280, 284) or land in the Conservation Reserve Program (a program whereby marginal farmland is planted primarily with grasses) (Higgins *et al.* 2002, pp. 46-47). Sprague's pipits will use nonnative planted grassland (Higgins *et al.* 2002, pp. 46-47; Dechant *et al.* 1998, p. 3; Dohms 2009, pp. 77-78, 88). Vegetation structure may be a better predictor of occurrence than species

composition (Davis 2004, pp. 1135, 1137).

Native grassland is disturbance dependant. Without disturbance, the vegetative species mix changes, and grasslands are ultimately overgrown with woody vegetation (Grant *et al.* 2004, p. 808) unsuitable for Sprague's pipits. Historical sources of disturbance were fire or grazing by bison. With fires being less prevalent on the prairie, current sources of disturbance are generally mowing or grazing by cattle. While Sprague's pipits prefer areas that are regularly disturbed (Askins *et al.* 2007, p. 21; Madden 1996, pp. 48-59), their preference for vegetation of intermediate height means that they will not use a mowed or burned area until the vegetation has had a chance to grow, which may be late in the following growing season, or may take several seasons (Dechant *et al.* 1998, pp. 1-2; Kantrud 1981, p. 414). The frequency of disturbance required for habitat maintenance depends on how quickly the grasses grow following a disturbance event, with precipitation rates being a major driver. For example, pre-colonial fire return rates are estimated to be approximately 6 years in North Dakota, but 10 to 26 years in Montana and other relatively dry portions of the range (Askins *et al.* 2007, pp. 20-21). After bison grazed an area, they may not have returned for 1 to 8 years (Askins *et al.* 2007, p. 21).

Breeding Range and Habitat

The breeding range is described as throughout North Dakota, except for the easternmost counties; northern and central Montana east of the Rocky Mountains; northern portions of South Dakota; and northwestern Minnesota. In Canada, Sprague's pipits breed in southeastern Alberta, the southern half of Saskatchewan, and in southwest Manitoba (Robbins and Dale 1999, p. 5).

During the breeding season, Sprague's pipits prefer large patches of native grassland with a minimum size requirement thought to be approximately 145 ha (358.3 ac) (range 69 to 314 ha (170 to 776 ac)) (Davis 2004, p. 1134). They were not observed in areas smaller than 29 ha (71.6 acres) (Davis 2004, p. 1134). While they have been reported to be less abundant in or absent from grassland that has been planted (Madden 1996, p. 104), recent research suggests that nesting success in planted grassland is similar to nesting success in native habitat (Dohms 2009, pp. 41-81). Preferred grass height has varied between studies, but is estimated to be between 10 and 30 cm (4 and 12 in.) (Dieni and Jones 2003, p. 390; Madden *et al.* 2000, p. 382; Sutter 1997, pp. 464-466). They will use nonnative planted grassland if the vegetative structure is suitable, but strongly prefer native prairie (Dechant *et al.* 1998, pp. 1, 4). The species prefers to breed in well-drained, open grasslands and avoids grasslands with excessive shrubs (Desmond *et al.* 2005, p. 442; Grant *et al.* 2004, p. 812; Sutter 1997, p. 464).

Sprague's pipits can be found in lightly to moderately grazed areas (Dechant *et al.* 1998, p. 4), but in North Dakota, a greater abundance of Sprague's pipits have been reported from moderately to heavily grazed areas (Kantrud 1981, p. 414). However, these descriptions are relative; vegetation described as lightly grazed in one study may be called heavily grazed in another (Madden *et al.* 2000, p. 388). The species is rarely found in cultivated areas (Owens and Myres 1973, p. 705). They may avoid roads, trails, and habitat edges (Dale *et al.* 2009, pp. 194, 200; Koper *et al.* 2009, pp. 1293-1295; Linnen 2008, p. 1; Sutter *et al.* 2000, p. 114).

Migration and Wintering Range and Habitat

The Sprague's pipit's wintering range includes south-central and southeast Arizona, Texas, southern Oklahoma, southern Arkansas, northwest Mississippi, southern Louisiana, and northern Mexico. There have been migration sightings in Michigan, western Ontario, Ohio, Massachusetts, and Gulf and Atlantic States from Mississippi east and north to South Carolina. Sprague's pipits also have been sighted in California during fall migration (Robbins and Dale 1999, p. 6).

Migration and wintering ecology are poorly known, but migrating and wintering Sprague's pipits are found in both densely and sparsely vegetated grassland, and pastures (Desmond *et al.* 2005, p. 442; Emlen 1972, p. 324). They are rarely found in fallow cropland (Wells 2007, p. 297). Sprague's pipits exhibit a strong preference for grassland habitat during the winter and an avoidance of areas with too much shrub encroachment (Desmond *et al.* 2005, p. 442). Their use of an area is dependent on habitat conditions. On their wintering grounds, after a wet year, when grass is denser, Sprague's pipits were dense, compared with few individuals in the same areas after dry years when grasses were sparse (Dieni *et al.* 2003, p. 31; Maci´as-Duarte *et al.* 2009, p. 869). They are not found in the narrow strips of grassland remaining along agricultural field borders (Desmond *et al.* 2005, p. 448). In migration, they may be found near or on trails and roads or near water (Maher 1973, p. 20), and they have been sighted in sunflower fields (Hagy *et al.* 2007, p. 66).

It has been estimated that only about 2.5 percent of the entire Chihuahuan desert region, an ecosystem extending across the border between the United States and Mexico entirely within the wintering range of the Sprague's pipit, is protected, mostly on the U.S. side (Desmond *et al.* 2005, p. 449).

Feeding Habits

Sprague's pipits eat a wide variety of insects during the breeding season and a very small percentage of seeds (1 to 2 percent) (Maher 1974, pp. 5, 32, 58).

Breeding Phenology

Male Sprague's pipits have a territorial flight display that takes place high in the air and that can last up to 3 hours (Robbins 1998, pp. 435-436). Sprague's pipits are very secretive around the nest itself, sometimes not flushing until a searcher is extremely close (Jones and Dieni 2007, p. 123). When returning to the nest, they can land several meters away and run to the nest through the grass (Jones and Dieni 2007, p. 123).

Nests are generally constructed in areas of relatively dense cover, low forb density, and little bare ground (Sutter 1997, p. 462). The nest is usually dome-shaped; is constructed from woven grasses; and is generally at the end of a covered, sharply curved runway up to 15 cm (5.9 in.) long which may serve as heat-stress protection (Sutter 1997, p. 467; Dechant *et al.* 1998, p. 2). The female lays four to five eggs (Allen 1951, p. 379; Maher 1973, p. 25), which she incubates for 11 to 17 days (Davis 2009, pp. 265, 267). Females may do most or all of the incubation (Sutter *et al.* 1996, p. 695), but both parents may feed the young (Dohms and Davis 2009, p. 826). Parental care likely continues well past fledging (Harris 1933, p. 92; Sutter *et al.* 1996, p. 695). The female will renest if the first nest fails, and some females have been documented successfully nesting two times during one breeding season (Sutter *et al.* 1996, p. 694; Davis 2009, p. 265). Long intervals between renesting attempts suggest that the rate of renesting is low (Sutter *et al.* 1996, p. 694). However, breeding pairs may only produce an average of 1.5 clutches per year (Sutter *et al.* 1996, p. 694). Males were documented to be polygamous (have two females on two nests at the same time), but the rate of polygyny is unknown (Dohms and Davis 2009, pp. 826, 828).

Population Trend Information

Due to its cryptic coloring and secretive nature, the Sprague's pipit has been described as "one of the least known birds in North America" (Robbins and Dale 1999, p. 1), and range-wide surveys for the species have not been conducted. The population from 1990-1999 was estimated at approximately 870,000, based on extrapolation of Breeding Bird Survey (BBS) data (Blancher *et al.* 2007, p. 27; Rich *et al.* 2004, p. 18). The population has continued to decline since that time (Sauer *et al.* 2008, p. 13). The species was described as abundant in the late 1800s in the upper Missouri River basin (Coues 1874, p. 42; Seton 1890, p. 626). More recent long-term estimates of Sprague's pipit abundance are derived from the BBS, a long-term, large-scale survey of North American birds that began in 1966. The BBS is generally conducted by observers driving on roads along established routes, with stops every half-mile to sample for birds. Because Sprague's pipits avoid roads (Sutter *et al.* 2000, p. 114), roadside surveys may not be the best measure of abundance of Sprague's pipits (Sutter *et al.* 2000, pp. 113-114). Nonetheless, the methods of the BBS have been consistent through time, and are the best available information for the breeding range at this time. The trend analysis suggests that the population is in steep decline (Peterjohn and Sauer 1999, p. 32), with an estimated 80-percent decrease from 1966 through 2007 in the U.S. and Canadian breeding range (approximately 3.9 percent annually) (Sauer *et al.* 2008, p. 8). The annual population decline shows some slight variation, but the long-term trend is consistently negative (95-percent confidence interval -5.6 to -2.2) (Sauer *et al.* 2008, pp. 5-6, 8). Assuming that the population was approximately 870,000 in 1995 (the mid-point between 1990 and 1999 (Rich *et al.* 2004, p. 18)), and the population continues to decline at 3.9 percent annually, the population would have declined to approximately 479,000 by 2010. By 2060, the population could drop to 66,000, and in 100 years, by 2110, the population could decline to 8,970. However, this estimate involves a number of assumptions. The original population estimate comes from the BBS data and is characterized as "beige," indicating that the 95-percent confidence limit around the average is within 20 percent of the average itself (Blancher *et al.* 2007, p. 22). Additionally, this assumes that the population will continue to decline in a linear fashion.

In addition to BBS surveys, the Canadian Wildlife Service conducts a Grassland Bird Monitoring program (GBM) using the same methodology as the BBS. GBM surveys are conducted along roads in areas within the mixed-grass prairie ecosystem where grassland is still common (Dale *et al.* 2005, entire; Environment Canada 2008, pp. 3-4). The GBM survey shows an even sharper decline of 10.5 percent annually from 1996-2004 in the core area of Sprague's pipit's habitat in Canada (Environment Canada 2008, pp. iii, 3-4). The GBM program decline compares with a 1.8-percent decline for the same period from the BBS data (Environment Canada 2008, pp. iii, 3-4). Since the GBM survey is conducted in habitat that should be optimal for Sprague's pipits in Canada, it indicates a serious decline in species abundance (Environment Canada 2008, p. 4).

The Christmas Bird Count (CBC) represents the only long-term data set that we are aware of that includes wintering information for the Sprague's pipit. The CBC is an annual count performed around the end of December in which volunteers observe birds in 15-mile-radius "count circles." The Sprague's pipit CBC data from the winters of 1966/1967 through 2005/2006 (a 40–year span) were analyzed following the methods described in Link *et al.* (2006, entire) (Niven 2010, pers. comm.). The 40–year trend data for Sprague's pipit shows an annual decline for Texas (2.54 percent), Louisiana (6.21 percent), Mississippi (10.21 percent), and Arkansas (9.27 percent). The data from Oklahoma, New Mexico, Arizona, Florida, and California indicated an uncertain or stable trend (Niven 2010, pers. comm.). California and Florida are outside of the described range, and the number of sightings was quite low, presumably representing a few birds straying off of their normal migration routes or wintering areas. Oklahoma is part of the migration route, so sightings there in December may be somewhat varied, depending on annual weather conditions. Overall, the 40–year trend showed a median declining population of approximately 3.23 percent annually and a 73.1-percent decline for the entire time period (Niven 2010, pers. comm.). These estimates are fairly consistent with the decline observed on the breeding grounds, indicating that the observed decline is real, rather than an artifact of the sampling technique.

Sprague's pipit is included on a number of Federal, State, and nongovernmental organization lists as a sensitive species. Sprague's pipit is listed in the *Birds of Conservation Concern*, a list of bird species (beyond those already federally listed as threatened or endangered) in greatest need of conservation action. The list is derived from three bird conservation plans: the Partners in Flight North American Landbird Conservation Plan, the United States Shorebird Conservation Plan, and the North American Waterbird Conservation Plan (Service 2008, pp. iii, 1, 27, 28-34, 35, 37, 41 50- 53, 58, 60, 63, 67, 76, 85). Sprague's pipits' status is listed as vulnerable on the International Union of Conservation Networks Red List (Birdlife International 2008, p. 1). It has a NatureServe Global Rank of G4, indicating that the population is apparently secure (NatureServe 2009, p. 1). The species is ranked as yellow on the Audubon 2007 watch list, indicating that it is either declining or rare. Species on the Audubon watch list typically are species of national conservation concern (Audubon 2007, p. 2). Partners in Flight also has placed Sprague's pipit on its watch list, indicating that the species is a species of conservation concern at the global scale, a species in need of management action, and a high priority candidate for rapid status assessment (Rich *et al.* 2004, p. 18).

Several states have identified the Sprague's pipit as a sensitive species in their State wildlife action plans, including Arizona, Louisiana, Minnesota, Montana, New Mexico, North Dakota, South Dakota, and Texas (Arizona Game and Fish Department 2010, p. 3; Louisiana Department of Wildlife and Fisheries 2005, p. 6; Minnesota Department of Natural Resources 2010, p. 1; Montana Fish, Wildlife and Parks 2010, p. 2; New Mexico Game and Fish 2010, p. 4; North Dakota Game and Fish Department 2010, p. 3; South Dakota Game, Fish, and Parks 2010, p. 3; Texas Parks and Wildlife 2005, p. 6). The criteria used to determine which species are listed as species of greatest conservation concern varies by State, but generally include known information about population trends on a State, regional, and national level; the importance of the State in the species' range; and often rankings on national lists (for example Natureserve and the Audubon watch list (NatureServe 2009, p. 1; Audubon 2007, p. 2)).

Summary of Information Pertaining to the Five Factors

Section 4 of the ESA (16 U.S.C. 1533) and implementing regulations (50 CFR 424) set forth procedures for adding species to the Federal Lists of Endangered and Threatened Wildlife and Plants. Under section 4(a)(1) of the ESA, a species may be determined to be

endangered or threatened based on any of the following five factors:

(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.

In considering what factors might constitute threats, we must look beyond the exposure of the species to the factor to determine whether the species responds to the factor in a way that causes actual impacts to the species. If there is exposure and the species responds negatively, the factor may be a threat and we then attempt to determine how significant a threat it is. If the threat is significant, it may drive or contribute to the risk of extinction of the species such that the species warrants listing as endangered or threatened as those terms are defined by the ESA.

Factor A. Present or Threatened Destruction, Modification, or Curtailment of the Habitat or Range.

Habitat Conversion

Thirty percent of prairie habitat in the Great Plains and Canada remains from pre-colonial times (Samson *et al.* 2004, p. 7), but as discussed below, the amount of suitable habitat remaining in the Sprague's pipit's range is much lower. Land conversion is accelerating in native prairie, with a conversion rate faster than the estimated conversion rate of rainforests in the Amazon (Stephens *et al.* 2008, pp. 1326-1327). Much of the land conversion is from native prairie to agricultural uses.. A Government Accountability Office report on agricultural conversion documented the continued conversion of native prairie to cropland, particularly in the Northern Plains of Montana, North Dakota, and South Dakota (Government Accountability Office 2007, pp. 4, 12, 15). A number of factors that encourage farmers to convert native prairie were identified, including; higher crop prices, especially for corn; farm payment programs that increase expected cropland profitability without increasing risk; the advent of herbicide-ready crops, and no-till farming methods, which allow farmers to plant directly into native prairie. The Northern Plains is identified as an area with continued conversion of native grassland (Government Accountability Office 2007, p. 4). From 2005 through 2007 (the most recent year data was available), approximately 94,400 ha (233,000 acres) of virgin prairie was broken for the first time, or approximately 32,000 ha (78,000 acres) annually (Stephens 2010, pers. comm.).

To determine the amount of potentially suitable habitat remaining within the Sprague's pipit's range, we performed a Geographic Information System (GIS) analysis for the U.S. portion of the breeding range (Loesch 2010, pers. comm.). We based the breeding range on data from the BBS in the U.S. range, and included cover types which were classified as grassland, pastureland, prairie, or temporary wetland (Loesch 2010, pers. comm.). From these data, we determined that approximately 2.1 percent of the total area (10 million ha [25 million ac]) in the Sprague's pipit's U.S. breeding range as defined by the BBS remains in suitable habitat, with most of the historic range converted to other uses. Nonsuitable land cover types within the Sprague's pipit's range include urban areas, transportation infrastructure, barren areas, cropland, forest, tree rows, shrublands, water, and wetland areas. Researchers predict that native grassland will continue to be converted, and the rate of conversion may increase (Fargione *et al.* 2009, p. 769; Stephens *et al.* 2008 p. 1328). Prairie habitat loss in the Missouri River Coteau is estimated to be approximately 0.4 percent annually (Stephens *et al.* 2008, pp. 1320, 1327). Even in areas that remain in native prairie, historic and current land management, including increased stocking levels, fencing, augmentation of water sources (which concentrate animals, making overgrazing more likely), and fire suppression, have all changed the grassland ecology and species mix (Knopf 1994, pp. 248-250; Weltzin *et al.* 1997, pp. 758-760). The changes in the grassland ecosystem have led to a steep decline in many grassland bird species, including the Sprague's pipit (Knopf 1994, pp. 251-254; Grant *et al.* 2004, p. 812; Lueders *et al.* 2006, pp. 602-604).

As in the United States, most of the native grasslands in Canada have been converted to other uses, which are largely not suitable for nesting of the Sprague's pipit (Environment Canada 2008, p. 6). Analysis done with imagery taken around 2000 suggested that approximately 94 percent of the species' range has been lost in Canada (Dale 2010, pers. comm.). Of the approximately 20 million ha (49.4 million ac) remaining as grassland in the Sprague's pipit's range in Canada, 15 to 20 percent (3 to 4 million ha (7.4 to 9.9 million ac)) remains in patches large enough to support breeding territories (Dale 2010, pers. comm.).

Prairie conversion is continuing, and is expected to continue (Fargione *et al.* 2009, p. 775; Stephens *et al.* 2008, pp. 1320, 1325). Because of the decreased amount of suitable native prairie remaining throughout the United States and Canada, the continued conversion of native prairie to other land uses, and the altered management regime in the native prairie that remains, we conclude that ongoing habitat loss and land conversion is a significant threat (i.e., a threat that, alone or in combination with other factors, is causing the species to be in danger of extinction, now or in the foreseeable future) to Sprague's pipit throughout its range.

Grazing

Grazing is a major driver in the prairie ecosystem. An appropriate level of grazing can help to maintain the prairie habitat, while too much or too little may make the habitat unsuitable for Sprague's pipits. Much of the prairie is now grazed more uniformly than it was in pre-colonial times and is often overgrazed, leading to a decline in species diversity and an increase in woody structure (since cattle do not eat woody vegetation, it has a competitive advantage over grass if some other mechanism is not used to remove trees and shrubs) (Walker *et al.* 1981, pp. 478-481; Towne *et al.* 2005, pp. 1550-1558). Additionally, cattle have replaced bison as the primary herbivore in Sprague's pipit habitat. Substituting cattle for bison does not necessarily lead to a change in grassland vegetation. A study comparing native prairie stocked with moderate levels of cattle to native prairie stocked with moderate levels of bison determined that, while there were some differences in the grazing habits of the two species, after 10 years the plant diversity and plant density in the two areas were similar (Towne *et al.* 2005, pp. 1552-1558). The authors suggest that the vegetation differences that many studies find between native prairie grazed by cattle and native prairie grazed by bison are due to different herd management practices and grazing intensity, rather than an inherent difference in the effect of the two herbivore species on vegetation (Towne *et al.* 2005, p. 1558). Ranchers often allow cattle to graze at high densities compared to the historic grazing densities of bison, which leads to a greater probability of overgrazing in grasslands (Towne *et al.* 2005, p. 1558). However, one study (Lueders *et al.* 2006, p. 602) noted that Sprague's pipits were more common on areas grazed by cattle than areas grazed by bison. The

management regimes (i.e., fire regimes, grazing densities) and sampling intensities of studies conducted on the two areas were quite disparate, precluding firm conclusions.

While improperly timed or overly heavy or light grazing negatively impacts Sprague's pipits' ability to use an area, we do not believe that grazing is a major threat to Sprague's pipits. While some areas are undoubtedly poorly managed, we believe this is a local rather than a rangewide problem. There is not enough information at this time to determine conclusively how grazing or substituting cattle for bison throughout much of the range impacts the Sprague's pipit, but from the available information, we do not believe that grazing is a significant threat to the species.

Fire

Like grazing, fire is a major driver on the prairie ecosystem. While there are still some controlled and wild prairie burns, fire is no longer a widespread regular phenomenon as it was in pre-colonial times. Fire suppression has allowed suites of plants, especially woody species, to flourish (Knopf 1994, p. 251; Samson *et al.* 1998, p. 11). Fire suppression since European settlement throughout the Sprague's pipit's range has impacted the composition and structure of native prairie, favoring the incursion of trees and shrubs in areas that were previously grassland (Knopf 1994, p. 251). This change of structure negatively impacts Sprague's pipits, which avoid trees and are negatively associated with shrub cover on both their breeding and wintering grounds (Desmond *et al.* 2005, p. 442; Grant *et al.* 2004; p. 812; Sutter 1997, p. 464). Eliminating fire from the landscape has likely changed the overall composition of the prairie (Towne *et al.* 2005, pp. 1557-1558). Trees and shrubs can be controlled to some extent through grazing or eliminated by regular mowing, although these management practices may result in selection for yet another suite of grassland plant species (Owens and Myres 1973, pp. 700-701).

The lack of widespread fire in current prairie management has contributed to land conversion to landcover types not suitable for the pipit. Some form of disturbance is necessary to maintain the grassland ecosystem, and grazing and mowing are generally used today. While the lack of widespread fires as a management technique has led to changes in the grassland ecosystem, we believe that other methods of habitat maintenance are substituting for the role that fire historically played, albeit while selecting for a different suite of grassland species. We do not have information to suggest that the change in fire regime is a significant threat to the species.

Mowing

Like grazing and fire, mowing is a management technique that can be used as a source of disturbance to prevent woody species from invading into grassland habitat. However, mowing (i.e., haying) in the breeding range could negatively impact Sprague's pipits by directly destroying nests, eggs, nestlings, and young fledglings, and by reducing the amount of nesting habitat available in the short term. Nest success of ground-nesting birds is already low, with an estimated 70 percent of nests destroyed by predators (Davis 2003, p. 119). While Sprague's pipits occasionally will renest if the first nest fails or if nestlings from the first clutch fledge early enough in the season, long intervals between nesting attempts suggest that renesting is relatively uncommon (Sutter *et al.* 1996, p. 694). Thus, early mowing can negatively impact reproductive success for the year. Even mowing done later in the season after chicks have fledged may impact the availability of breeding habitat the following year because Sprague's pipits will not use areas with short grass until later in the season when the grass has grown, possibly due to dense revegetation and the lack of litter (Dechant *et al.* 1998, p. 3; Owens and Myres 1973, p. 708; Kantrud 1981, p. 414). On the other hand, as noted above, mowing can improve Sprague's pipit habitat in the long term by removing trees and shrubs (Owens and Myres 1973, p. 700).

There is not sufficient information available about the extent, timing, and frequency of mowing throughout the species' range to make firm conclusions about how much of a threat mowing poses. Since mowing can play both a positive and negative role in the maintenance of Sprague's pipit habitat, the impacts of mowing are mixed. In some parts of the range where large portions of the remaining grasslands are mowed annually or grass growth is slow or both, mowing may be negatively impacting the population. However, at this time, we do not have information to indicate that mowing is a significant threat to the species rangewide.

Habitat Fragmentation on the Breeding Grounds

Whereas direct conversion of native prairie results in an obvious loss of habitat, fragmentation of the remaining native prairie can make large portions of otherwise suitable habitat unusable for nesting Sprague's pipits. A number of studies have found that Sprague's pipits appear to avoid non-grassland features in the landscape, including roads, trails, oil wells, croplands, woody vegetation, and wetlands (Dale *et al.* 2009, pp. 194, 200; Koper *et al.* 2009, pp. 1287, 1293, 1294, 1296; Greer 2009, p. 65; Linnen 2008, pp. 1, 9-11, 15; Sutter *et al.* 2000, pp. 112-114). The extent to which Sprague's pipits avoids roads varies between studies. One study found that of 46 mapped Sprague's pipit territories, only 5 (11 percent) crossed a trail or pipeline (*in* Dale *et al.* 2009, p. 200). However, other studies found that Sprague's pipits avoid roads but not trails, presumably because of the difference in structure in the road right-of-way (Sutter *et al.* 2000, p. 110), and one study did not document avoidance of roads, although it did document avoidance of other changes in habitat structure (Koper *et al.* 2009, pp. 1287, 1293). Sprague's pipits may be particularly sensitive to habitat fragmentation because their high flight display affords them a wide view of the area, and thus they may select their territories based on landscape, rather than site-specific features (Koper *et al.* 2009, p. 1298).

The effect of a non-grassland feature (e.g., shrubs, trees, roads, human-made structures) in the landscape can be much larger than its actual footprint. Sprague's pipits are sensitive to patch size (i.e., the amount of contiguous native grassland available (Davis 2004, pp. 1134, 1135-1137; Davis *et al.* 2006, pp. 812-814; Greer 2009, p. 65)), and they avoid edges between grassland and other habitat features that are structurally different than grassland (Davis 2004, p. 1134; Koper *et al.* 2009, pp. 1287, 1293-1296). Sprague's pipits were not found in patches less than 29 ha (71.7 ac), and the minimum size requirement is thought to be 145 ha (358.3 ac) (range 69 to 314 ha (170 to 776 ac)) (Davis 2004, p. 1134), with even larger patches preferred (Davis 2004, pp. 1134-1135, 1138; Greer 2009, p. 65).

The shape of the patch also is important. Since Sprague's pipits have been shown to avoid edges (Linnen 2008, pp. 1, 9-11, 15), grassland areas with a low edge-to-area ratio provide optimal habitat (Davis 2004, pp. 1139-1140). Thus, a linear patch may not be suitable for a Sprague's pipit's territory, even if it is sufficiently large. Koper *et al.* (2009, p. 1295) noted that conversion of one quarter section (64 ha (158 ac)) in the middle of a grassland patch reduced the utility of an additional 612 ha (1,512 ac) of grassland.

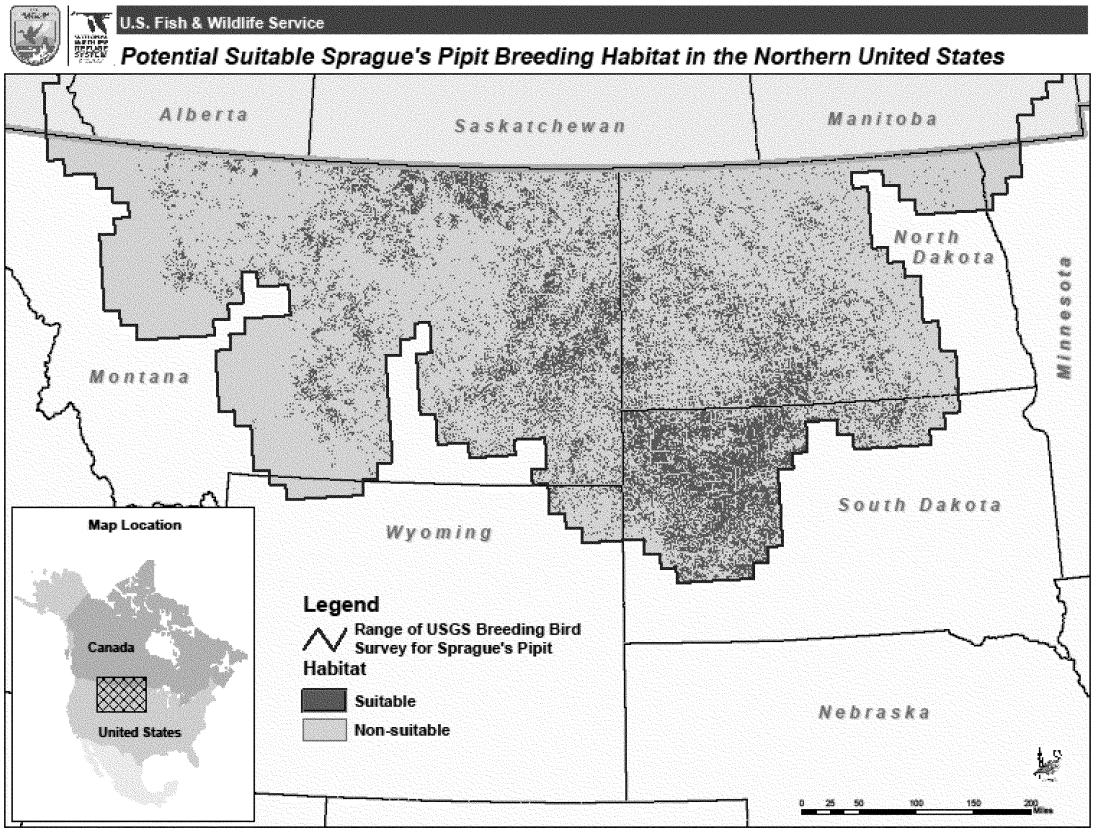
Because of the Sprague's pipit's selection for relatively large grassland

areas and avoidance of edges, habitat fragmentation is a threat throughout the population's breeding range. As more roads, oil and gas development, wind farms, and other features are constructed in the Northern Great Plains, the fragmentation of the native prairie is expected to increase, further decreasing the amount of suitable habitat in large enough patches to be used by breeding pairs.

In order to determine the potential cumulative impact of human features on Sprague's pipits, we performed a GIS analysis. We used the BBS to map the breeding distribution of the species. The BBS uses inverse distancing to smooth the data by using route relative abundance to estimate presence beyond the end of a survey road (Sauer *et al.* 2008, pp. 17-19). We overlaid layers of suitable Sprague's pipit habitat, the road system, permitted oil and gas wells, and existing wind towers in the U.S. breeding range. Since GIS information regarding the location of the roads constructed by the energy companies to access their wells or towers was not available, we estimated new road construction by having the GIS program measure the shortest distance from the nearest road to the energy feature (Loesch 2010, pers. comm.). Topography may preclude building a road following the most direct route, so this is a conservative estimate of the miles of new roads constructed. We buffered the roads, wind towers, and oil and gas well pads by 350 m (1148 ft) based on an estimate of Sprague's pipits' avoidance of oil pads and associated roads (Linnen 2008, pp. 1, 9-11).

As noted above, approximately 2 percent of the U.S. breeding range remains in a habitat type that is potentially suitable for Sprague's pipit nesting. When we overlaid current and approximated roads, oil and gas wells, and wind development, the amount of suitable habitat in patches larger than 145 ha (358.3 ac), described as the minimum size requirement for breeding Sprague's pipits (Davis 2004, p. 1134), declined to 1.55 percent of the historic breeding range (Figure 1) (Loesch 2010, pers. comm.). If we include habitat patches 29 ha (71.6 ac) or larger, the smallest patch size where Sprague's pipits were observed (Davis 2004, p. 1134), the amount of potentially suitable habitat increases marginally to 1.86 percent of the historic breeding range in the United States (Loesch 2010, pers. comm.). If energy development continues as projected, the amount of suitable habitat will decline even further.

FIGURE 1: Current grassland habitat patches for Sprague's pipits of 145 ha (358.3 ac) or larger in areas of the north-central United States where the species has been encountered by the BBS (Loesch 2010, pers. comm.).



A similar GIS analysis of remaining suitable breeding habitat in Canada, including oil and gas wells, roads, and trails leading to each well, determined that about 5.6 percent of the Canadian range is suitable (having a greater than 50 percent probability of occupancy) for Sprague's pipits (Dale 2010, pers. comm.). A similar estimate (5 to 6 percent) was independently reached by another researcher also analyzing land cover data for the Canadian range (Davis 2010, pers. comm.).

Our analysis shows that the remaining suitable habitat continues to be converted and fragmented, a trend that we expect to increase. With only 1.55 to 1.86 percent of the U.S. historic breeding habitat and only approximately 15 to 20 percent of the Canadian breeding habitat still suitable for Sprague's pipit nesting, the areas where birds can relocate to as more habitat becomes fragmented and unsuitable for Sprague's pipit nesting is drastically diminished. As development continues, we expect the potential area for Sprague's pipits to nest to decline further. The existing and ongoing fragmentation of suitable habitat makes the long-term observed decline of Sprague's pipit likely to continue into the future.

Energy Development

Energy development (oil, gas, and wind) and associated roads and facilities increase the fragmentation of grassland habitat. Much of the Sprague's pipit's breeding range overlaps with major areas of oil and gas development, which have been increasing rapidly in some portions of the Sprague's pipit's range. In North Dakota, the number of drilling permits nearly doubled between 2007 and 2008, from 494 permits issued in 2007 to 946 in 2008 (North Dakota Petroleum Council 2009, p. 2). This trend is expected to increase; up to 1,850 wells could be drilled annually for a total of up to 19,860 additional wells in North Dakota over the next 20 years (North Dakota Department of Mineral Resources Undated, pp. 7-17). Oil officials anticipate that production will continue to expand at record levels (MacPherson 2010; entire). Much of the oil activity is occurring in areas of native prairie, a trend that we expect to continue (Loesch 2010, pers. comm). The Bakken formation that is currently being drilled lies entirely within the U.S. and Canadian breeding range (USGS 2008, p. 1; Robbins and Dale 1999, p. 5). Sprague's pipits avoid oil wells, staying up to 350 meters (m) (1148 feet (ft)) away (Linnen 2008, pp. 1, 9-11), magnifying the effect of the well feature itself. Oil and gas wells, especially at high densities, decrease the amount of habitat available for breeding territories. We calculated that each well and associated road has impacted approximately 21 ha (51 acres), including the area that Sprague's pipits avoid (Loesch 2010, pers. comm.). Thus, an additional 19,860 wells could impact 400,000 ha (1 million acres) just in the Sprague's pipit range in North Dakota.

Each oil and gas well pad requires some amount of associated new road construction. As discussed above, there is evidence that Sprague's pipits avoid roads and trails on the breeding grounds (Linnen 2008, pp. 1, 9-11; Dale *et al.* 2009, p. 200). Oil and gas development has been shown to double the density of roads on range lands (Naugle *et al.* 2009, pp. 11, 46). In areas with ranching, tillage agriculture, and oil and gas development, 70 percent of the land was within 100 m (109 yards (yd)), and 85 percent of the land was within 200 m (218 yd), of a human feature (Naugle *et al.* 2009, p. 11). Researchers estimated that in those areas, every square km (0.39 square miles) of land may be both bounded by a road and bisected by a powerline (Naugle *et al.* 2009, p. 11). With increased oil and gas development in much of the Sprague's pipit's range, this level of fragmentation is likely to be occurring over a large percentage of the range. As discussed above, habitat

fragmentation is one of the major threats facing the species.

Wind energy development has been increasing rapidly in recent years, with increases of more than 45 percent in 2007, and more than 50 percent in 2008 (Manville 2009, p. 1). Like oil development, wind projects built in native grassland fragment the habitat with turbines, towers, roads, transmission infrastructure, and associated facilities. We estimate that each turbine and associated road impacts approximately 34.5 ha (85.3 acres) of land, including an area around the road that Sprague's pipits avoid (Linnen 2008, p. 9-10; Loesch 2010, pers. comm.). However, because most turbines are placed close enough together for the avoidance areas to overlap, we calculated the impact of each individual turbine to be less, approximately 16.4 ha (40.5 acres) per turbine on average. To date, we estimate that 12,400 ha (30,522 ac) have been impacted by 752 wind turbines and associated roads within the Sprague's pipit U.S. range. We anticipate the number of wind farms to continue to increase dramatically throughout the species' range. For example, in North Dakota alone, we are aware of a plan to construct 4,194 new turbines within the Sprague's pipit's range (Ellsworth 2010, pers. comm.). This proposed development has the potential to make 69,200 to 145,000 ha (170,000 to 358,000 acres) of land unsuitable for pipit nesting, depending on how the turbines are spaced. This likely represents a fraction of potential habitat loss from wind energy development, because we typically are not informed of wind projects until sites are selected.

North Dakota and South Dakota each have the potential wind-energy capacity of at least 4 mega-watts (MW) of wind power per km^2, while Montana has been projected to have the potential for 3 to 4 MW of wind power per km^2 (National Research Council 2007, p. 45). We calculated how much of the Sprague's pipit's U.S. range this amount of development may impact, using the following assumptions:

1) Each turbine would provide 2 MW of power. Onshore turbines are constructed between 700 kW to 2.5 MW (American Wind Energy Association 2010, p. 3), with most industrial projects that we are aware of in the 1.5 MW range. However, wind industry is working toward developing larger turbines , so we believe that in the future turbine size is likely to be 2 MW or greater.

2) Future wind projects would be constructed at approximately the same density as existing wind farms in these states, with the area of habitat that Sprague's pipits avoid from one turbine overlapping the avoidance area from another. We also assume that each turbine, road and associated area makes approximately 16.4 ha (40.5 acres) of habitat unsuitable for nesting.

3) Turbines would be evenly distributed across the Sprague's pipit range in the U.S. This assumption is likely conservative in terms of effects to habitat because the areas with the highest wind potential in these states are largely within the remaining suitable prairie habitat. Major wind development is likely to occur in the remaining suitable Sprague's pipit habitat (U.S. Department of Energy 2010a, p. 1; Loesch, pers. comm. 2010).

Using the above assumptions, we estimate that a minimum of 4.8 million hectares (12 million acres) could become unsuitable for nesting within the range in North Dakota and a minimum of 2.1 million ha (5.1 million acres) could become unsuitable in South Dakota, while in Montana from 6.6 to 8.8 million hectares (16.4 to 21.8 million acres) could be impacted. While full development of the wind potential in Sprague's pipit habitat is not likely, these figures indicate that even a fraction of full development could result in significant losses of Sprague's pipit habitat. This estimate only includes the impacts from the turbines and associated roads. The potential impacts from other associated infrastructure (e.g. power lines) is not known, but may impact the species (e.g. from power-line strikes). The areas with the highest wind potential often overlap with the areas of remaining native prairie, making it likely that wind development will focus on the remaining suitable Sprague's pipit habitat (U.S. Department of Energy 2010a, p. 1; Loesch, pers. comm. 2010).

There is some information suggesting that wind farms adversely impact grassland songbirds, a group that is already in decline (Casey 2005, p. 4; Manville 2009, p. 1). The entire U.S. range of the Sprague's pipit is within an area with high potential for wind development (American Wind Energy Association 1991, p. 1; U.S. Department of Energy 2010a, p. 1). Thousands of acres of Sprague's pipit habitat have already been fragmented by wind development (Loesch 2010, pers. comm.), a trend which is presumably consistent throughout the range as the number of wind farms increases (U.S. Department of Energy 2010b, entire). Thirty-three States and the District of Columbia have requirements or voluntary goals for renewable energy to make up a percentage of their energy needs, including North Dakota, South Dakota, Minnesota, and Montana (U.S. Department of Energy 2009, entire). Mandates for "green" energy in States without Sprague's pipits are likely to fuel increases in wind development in the Sprague's pipits' range because wind power generated in these wind-rich areas are generally transmitted out-of-State (e.g. Great River Energy 2010, p. 1). We anticipate the number of turbines throughout the Sprague's pipit range to continue to dramatically increase.

Oil and gas extraction is ongoing throughout much of the Sprague's pipit's range in Canada, and is expected to increase into the future (Dale 2010, pers. comm.). Similarly, wind development is increasing throughout the Canadian range of the Sprague's pipit (Canadian Wind Energy Association 2010, entire; Canadian Environmental Assessment Agency – Canadian Environmental Assessment Registry 2010, entire).

Because of wide-scale energy development across the Sprague's pipits' range, we believe that oil, gas, and wind development represents a serious threat to the continued existence of the Sprague's pipit. Sprague's pipits avoid features in the landscape that are structurally different than grassland, so the construction of energy-related structures negatively impacts the species' use of a wide area. The amount and extent of energy development has been increasing rapidly and is expected to continue to increase, so energy development will be an ongoing and increasing threat into the future.

Roads

In addition to fragmenting the habitat, roads enable the spread of exotic species because vegetative propagules (parts that can sprout independently) can be inadvertently transported along roads, while the ground disturbance associated with road construction provides sites where propagules can readily germinate (Trombulak and Frissell 2000, p. 24; Simmers 2006, p. 7). Furthermore, the dust and chemical runoff from roads allow only tolerant plant species to grow nearby, changing the plant composition even if the right-of-way were not actually disturbed and reseeded (Trombulak and Frissell 2000, p. 23). Even 20 years after reclamation, the nonnative seeds used on reclaimed roadbeds can still dominate the area (Simmers 2006, p. 24). These nonnative species spread into the nearby prairie, indicating that long-term impacts of road construction extend beyond the original footprint of the roadway (Simmers 2006, p. 24). Even if vehicles are cleaned before entering an area, they pick up nonnative seeds when visiting

infested sites, and carry them to newly disturbed areas, transporting nonnative species throughout the landscape (Dale *et al.* 2009, p. 195). In addition, as discussed under Factor C, roads serve as pathways for predators (Pitman *et al.* 2005, p. 1267). Thus, a secondary impact of habitat fragmentation may be an increase in predation.

The increase in roads throughout the Sprague's pipit's range represents a serious and ongoing threat to the species. Because every new energy feature requires at least some new road construction, the impacts of energy development on the species are closely tied to the impacts of road development. Both further fragment the remaining suitable habitat, leaving remnant patches that may be too small for the nesting of Sprague's pipit. Roads negatively affect the structure and make-up of the prairie, and also make grassland habitat more accessible to predators, likely decreasing Sprague's pipits' reproductive success.

Migration and Wintering Habitat

Although there have been few studies of non-breeding Sprague's pipits, Sprague's pipits appear to be strongly tied to native prairie habitat during the winter (Desmond *et al.* 2005, p. 442; Emlin 1972, p. 324). They are occasionally observed in other habitat types, especially during migration (Maher 1973, p. 20; Robbins and Dale 1999, pp. 13-14). Several researchers have noted the rapid conversion rate to cropland and extremely limited area protected in the Chihuahuan desert region along the border between the United States and Mexico (Desmond *et al.* 2005; pp. 448-449; Maci´as-Duarte *et al.* 2009, p. 902; Manzano-Fischer *et al.* 2006, p. 3820). In the Chihuahuan Desert Region (United States and Mexico), an estimated 7 percent of grassland habitat remained in 2005 (Desmond *et al.* 2005, pp. 439, 448). Between 2005 and 2008, an estimated 30,000 ha (74,000 ac) of this grassland was converted (Macias-Duarte *et al.* 2009, p. 902). In many places where native grassland remains, a variety of factors have led to shrub encroachment, including overgrazing, elimination of prairie dogs, changes in stream flow and the water table due to irrigation, and changes in climate patterns (Desmond *et al.* 2005, p. 448; Manzano-Fischer *et al.* 2006, p. 3820; Walker *et al.* 1981, p. 493). Reversing the pattern of woody species invasion is very difficult because once established, woody species tend to be stable in the landscape (Whitford *et al.* 2001, p. 9).

Because Sprague's pipit's presence on the wintering grounds in a particular area is related to rainfall the previous year (Dieni *et al.* 2003, p. 31; Maci´as-Duarte 2009, p. 901), pipits move to different parts of the wintering range annually, with densities dependent on local conditions. Therefore, it is likely necessary for sufficient suitable habitat to be available throughout the wintering range so that areas that are too dry one year may be used when conditions improve but are poor elsewhere. With conversion of grassland habitat on the wintering grounds, the amount of suitable habitat available to Sprague's pipits is shrinking (Maci´as-Duarte 2009, p. 896; Manzano-Fischer *et al.* 2006, p. 3820). Even grassland that is not actively converted is becoming unsuitable for Sprague's pipits due to widespread changes in grassland management and resulting changes in grassland structure. These changes are caused by overgrazing, shrub encroachment, and an increase in the biomass of annual grasses, among other causes (Drilling 2010, pp. 9-10; Manzano-Fischer *et al.* 2006, pp. 3819-3821; Walker *et al.* 1981, pp. 473-474).

The Sprague's pipit's wintering habitat has undergone widespread conversion to farmland and degradation from management changes since pre-colonial times. These changes are likely negatively impacting the Sprague's pipit population as a whole. As conversion and degradation continue, we expect wintering habitat to be more limiting. However, there have not been specific studies examining Sprague's pipits' habitat use during migration or on the wintering grounds, so it is not possible to determine if the changes to the migration and wintering grounds already constitute a threat to the species that may be placing the species at risk of extinction now or in the future. However, we think the magnitude of loss on the breeding grounds is sufficient to determine that the species is at risk of extinction now or in the future even in the absence of specific information on the wintering grounds.

Summary of Factor A

The Sprague's pipit is a grassland obligate species that is sensitive to fragmentation and that requires relatively large grassland patches to form breeding territories. As identified above in our Factor A analysis, the native prairie habitat on which Sprague's pipits depend has been drastically altered since European settlement, with most of the native prairie converted to other uses. Habitat conversion, fragmentation, improperly timed mowing, and energy development and associated facilities are all contributing, individually and collectively, to the present and threatened destruction, modification, and curtailment of the habitat and range of the Sprague's pipit. Only approximately 1.55 to 1.86 percent of the breeding range remains in large enough patches to be used for breeding in the United States and only approximately 5 to 6 percent remains suitable in Canada. Land conversion and fragmentation of remaining grassland habitat are accelerating throughout the species' breeding range. Grassland on the wintering range also is rapidly being converted to uses not suitable for the species. We anticipate that conversion and fragmentation will continue to occur, and are likely to increase, on both the breeding and wintering range. As discussed above, the Sprague's pipit population is experiencing a long-term decline. As more habitat becomes unsuitable, we expect the population decline to continue or to accelerate.

We have evaluated the best scientific and commercial information available regarding the present or threatened destruction, modification, or curtailment of the Sprague's pipit's habitat or range. Based on the current and ongoing habitat issues identified here, their synergistic effects, and their likely continuation in the future, we have determined that this factor poses a significant threat to the species.

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

We are not aware of any commercial, recreational, or educational uses of the species. Sprague's pipit has not been extensively studied for scientific purposes (e.g., Robbins and Dale 1999, p. 1; Davis 2009, p. 265). A limited number of studies have involved close observation or handling of Sprague's pipit adults, nests, or young (e.g., Sutter *et al.* 1996, pp. 694-696; Davis 2003, pp. 119-128; Dieni and Jones 2003, pp. 388-389; Jones *et al.* 2007; Dohms and Davis 2009, pp. 826-830). Work involving radio-transmitter attachment on Sprague's pipit nestlings found no evidence that the devices impacted survival, although the transmitter may temporarily impact the birds' balance and movement (Davis and Fischer 2009, p. 199; Fischer *et al.* 2010, pp. 1, 3-5).

Most research that includes the Sprague's pipit relies on passive sampling (e.g., point counts) rather than active handling. The studies that involve active handling of adults, nestlings, or nests may impact the individuals involved, but are small enough in scale that they are unlikely to affect the population as a whole. Passive

sampling techniques are unlikely to have negative impacts on Sprague's pipits.

Summary of Factor B

We do not have any evidence of risks to Sprague's pipits from overutilization for commercial, recreational, scientific, or educational purposes, and we have no reason to believe this factor will become a threat to the species in the future. Therefore, we find that overutilization for commercial, recreational, scientific, or educational purposes is not a significant threat to the Sprague's pipit now or in the foreseeable future.

Factor C. Disease or Predation.

Disease

We are not aware of any information to indicate that disease poses a significant threat to Sprague's pipits at this time. The Intergovernmental Panel on Climate Change (IPCC) (2007, p. 51) suggests that the distribution of some disease vectors may change as a result of climate change. However, the Service currently has no information to suggest that any specific disease may become problematic to Sprague's pipit.

Predation

Predation is thought to destroy up to 70 percent of grassland bird nests (Davis 2003, p. 119). The predation rate on Sprague's pipits may be lower due to their well-concealed nests and secretive behavior (Davis 2003, pp. 124; Davis and Sealy 2000, p. 223; Jones and Dieni 2007, pp. 117-122). The species' tendency to choose taller vegetation and to build covered nests with a runway presumably is at least in part an attempt to avoid being seen by predators (Sutter 1997, p. 467), although a covered nest may not reduce predation (Jones and Dieni 2007, p. 123). Predation has been documented to be the main cause of mortality of nestling and fledgling Sprague's pipits (Davis and Fisher 2009, entire).

We do not believe that the natural level of predation presents a threat to the species. Rather, the predation risk for the Sprague's pipit may be unnaturally increased by the fragmentation of habitat discussed above under Factor A. Songbird predators tend to travel along habitat edges, avoiding prairie areas where escape is more difficult (Johnson and Temple 1990, p. 110). Birds that may nest near a habitat edge, such as a road, could experience lower nest success because they may be more likely to be parasitized by cowbirds (Davis 1994, p. i) and because roads may serve as travel routes for predators (Pitman *et al.* 2005, p. 1267). The Sprague's pipit's preference for larger patches of unfragmented prairie may reduce their susceptibility to predation. However, as fewer large patches of grassland are available, predation risk to Sprague's pipits may increase.

Cowbird Parasitism

Cowbird parasitism also leads to Sprague's pipit nest failures, because the cowbirds remove or damage host eggs and cowbird young out-compete the hosts for resources (Davis 2003, pp. 119, 127). Limited evidence suggests that Sprague's pipit nests that are parasitized do not produce any pipit young (Davis and Sealy 2000, p. 226). Both nest predation and cowbird parasitism generally are higher in small remnant grassland plots near habitat edges (Johnson and Temple 1990, pp. 106, 108; Davis 1994, p. i; Davis and Sealy 2000, p. 226), so the Sprague's pipit's preference for larger tracts of grassland, when these are available, may make the species less susceptible to cowbird parasitism than some other grassland species. As with predation, the continued loss and fragmentation of native grassland (see discussion under Factor A) means that the remaining habitat is more fragmented, likely leading to increased levels of cowbird parasitism and predation.

We are concerned that continued landscape fragmentation will increase the effects of predation on this species, potentially resulting in a further reduction in Sprague's pipit productivity and abundance in the future. However, there is very limited information on the extent to which such effects might be occurring.

Summary of Factor C

We do not find evidence that disease is currently impacting the Sprague's pipit, nor do we have information to indicate that disease outbreaks will increase in the future. We find that disease is not a threat to the Sprague's pipit now and is not expected to become so in the future. While the level of predation for all grassland birds is high, we do not have information at this time to suggest that predation or cowbird parasitism is impacting Sprague's pipits at a level that threatens the species. Because Sprague's pipits select large grassland patches for nesting, when larger habitat patches are available Sprague's pipits may be less susceptible to cowbird parasitism than other grassland species. However, the increased fragmentation of habitat, as discussed under Factor A, may lead to increased predation and cowbird parasitism, and we believe that predation may become a more serious factor affecting the species. However, at this time, based on the available information we conclude that disease or predation is a not significant threat to the species now and is not likely to become so in the future.

Factor D. Inadequacy of Existing Regulatory Mechanisms.

Federal Mechanisms

There are numerous Federal laws, acts, and policies in addition to the ESA that encourage coordination of activities that may impact wildlife and promote conservation of wildlife. Some of the most frequently encountered Federal regulatory mechanisms that may influence Sprague's pipit management are described below.

The Sprague's pipit is protected under the Migratory Bird Treaty Act (MBTA; 16 U.S.C. 703-712), which prohibits the direct take of migratory birds native to the United States, their eggs, or their active nests. Unlike the ESA, the MBTA does not protect species' habitat. Upland habitat for migratory birds can be legally destroyed as long as it does not result in the direct take of birds, eggs, or active nests. As discussed under Factor A, habitat loss and fragmentation is a main reason for the species' decline. Therefore, even if all public and private activities are designed and carried out to avoid direct take of Sprague's pipits, the magnitude of the loss of breeding (and possibly migration and wintering) habitat would still constitute a significant threat to the species.

The National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) requires all Federal agencies to examine the environmental impacts of their actions, incorporate environmental information, and utilize public participation in the planning and implementation of all actions. NEPA requires disclosure of actions, but does not require mandatory minimization measures for, or protection of, the species or its habitat. NEPA would not protect Sprague's pipit habitat from conversion and is insufficient to address the threats to the Sprague's pipit.

As noted under Factor A, favorable market prices often encourage farmers to plow new land for crop production. There are no Federal laws or regulations prohibiting conversion of uplands from native habitat to cropland, and we are not aware of any State regulatory mechanisms that govern conversion of native grassland to cropland when migratory birds will be impacted.

Wind Farms and Federal Mechanisms

The Service has developed interim guidelines for siting wind farms (Service 2003, pp. 1-57) to reduce impacts to wildlife and wildlife habitat, but they are voluntary and are not consistently applied (or applied at all) on private land where there is not a Federal nexus (Manville 2009, p. 1). As previously discussed, the MBTA does not protect habitat. Even where a Federal regulatory mechanism exists, migratory bird habitat can, and is, being converted to industrial uses. Wind turbines can be, and are being, constructed on National Wildlife Refuge System easements (Wind Energy Advisory Group 2007, entire).

State Regulatory Mechanisms

As discussed above, a number of States have identified the Sprague's pipit as a species of conservation concern (Arizona Game and Fish Department 2010, p. 3; Louisiana Department of Wildlife and Fisheries 2005, p. 6; Minnesota Department of Natural Resources 2010, p. 1; Montana Fish, Wildlife and Parks 2010, p. 2; New Mexico Game and Fish 2010, p. 4; North Dakota Game and Fish Department 2010, p. 3; South Dakota Game, Fish, and Parks 2010, p. 3; Texas Parks and Wildlife 2005, p. 6). While the State wildlife agencies work with partners to protect the species, there are no State regulations protecting habitat (Baker 2010, pers. comm.; Francis 2010, pers. comm.; Gilbert 2010, pers. comm.; Glusenkamp 2010, pers. comm.; Johnson 2010, pers. comm.; Michon 2010, pers. comm.; Ode 2010, pers. comm.; Wightman 2010, pers. comm.). In Montana, much of the prime Sprague's pipit habitat is managed as school trust land, and as such may be sold or converted at any time to generate income for State schools (McDonald 2010, pers. comm.). Thus, the States do not have regulations that would protect Sprague's pipit habitat from further conversion or fragmentation.

Wind Energy and State Mechanisms

Some States have permit requirements for wind farm construction. However, as discussed above, except for Minnesota, there are no requirements to avoid Sprague's pipit habitat. A State permit is required in South Dakota for wind farms larger than 100 megawatts (South Dakota Public Utilities Commission 2010, p. 1), and in North Dakota for wind farms larger than 60 megawatts (North Dakota Public Service Commission 2010, p. 3). No State permit is required in Montana (Montana Department of Environmental Quality 2009, p. 1).

Canadian Regulatory Mechanisms

In Canada, the Sprague's pipit is listed as threatened under the Species At Risk Act (SARA), providing it with many similar protections as would be afforded by the ESA if the species were listed as an endangered or threatened species (SARA: Government of Canada 2010, entire). Once a species is listed under SARA, it becomes illegal to "kill, harass, capture, or harm it in any way." The SARA also protects critical habitat from destruction (Fisheries and Oceans Canada 2009, pp. 1-2). Critical habitat has not yet been designated for the Sprague's pipit under SARA (Davis 2010, pers. comm.), so at this time, habitat is only protected during the nesting season. If Canada designates critical habitat in that country, the emphasis would be placed on Canadian Federal lands, and a SARA permit would be required to destroy critical habitat. On provincial or private lands, the province's laws would apply to critical habitat. If there is a potential serious impact to critical habitat and the province is not willing to stop the project, the Canadian government can intercede.

Under SARA, an environmental review is conducted for projects on Canadian Federal land, for projects that require a Canadian Federal permit or authorizations, and for projects that receive Canadian Federal funding. The applicant must demonstrate that they have considered reasonable alternatives and have taken all feasible measures to minimize potential project impacts, and that the project will not jeopardize the survival or recovery of the species. On provincial land, provincial legislation protects the species under the province's environmental review process. Provinces can invite the Canadian Federal government to comment on their projects. Similarly, on private land with no Federal involvement, provincial laws would apply.

The SARA provides significant protection to the species in Canada, and is likely sufficient to address many of the threats facing the species in Canada. Approximately 75 percent of the population is estimated to breed in Canada (Blancher *et al.* 2007, p. 27). Given the lack of protection in the United States as well as the concurrent decline in habitat on the wintering grounds in the United States and Mexico, we do not think that the protection in Canada alone is sufficient to halt or reverse the species' decline.

Wintering Grounds in the United States and Mexico

The species benefits from protections on U.S. National Wildlife Refuge lands, protected lands in Mexico, and lands purchased by nonprofit organizations on the wintering grounds, but these lands are a relatively small portion of the wintering range and may not be sufficient to support the species (Emlen 1972, pp. 302, 304; Wells 2007, pp. 296-298). Habitat conservation and restoration for the federally endangered Attwater's greater prairie-chicken (*Tympanuchus cupido attwateri*) also should benefit the Sprague's pipit along the eastern coast of Texas. However, Attwater's greater prairie-chicken's habitat is a very small portion of the Sprague's pipit wintering range. Furthermore, the recovery plan for the Attwater's greater prairie-chicken notes that efforts to protect habitat are hampered by rapid urbanization (Service 2010, pp. 2, 28-29). As discussed under Factor A, Sprague's pipits likely move widely throughout the wintering region in response to precipitation patterns and local habitat conditions. Therefore, relatively few, scattered, protected areas may not provide sufficient habitat over the long term to provide for the species' needs.

Other than some limited protected lands in Mexico, we are not aware of any regulatory mechanisms protecting the Sprague's pipit in Mexico.

Summary of Factor D

The MBTA currently provides Federal protection from direct take of migratory birds native to the United States, their active nests, and their eggs, but it does not provide protection for habitat. As discussed under Factor A, remaining habitat in both the breeding and wintering range is rapidly being converted and fragmented. While most of the States in the Sprague's pipit's range have identified the Sprague's pipit as a species of conservation concern, this designation does not provide protection of remaining habitat. Because the main threat to the species is habitat loss, we find that existing U.S. regulatory mechanisms do not protect the species from the threat of habitat loss.

In Canada, the Sprague's pipit is listed as a threatened species (Environment Canada 2008, p. 1). While this listing provides considerable protection to the species, the population would be unlikely to reverse its decline without additional protection on the U.S. breeding portion of the range as well as on its wintering grounds.

Other than some limited protected areas, we are not aware of any regulatory mechanisms protecting Sprague's pipits' habitat in Mexico. A large portion of the wintering range is in Mexico, and the literature suggests that habitat is rapidly being converted (Desmond *et al.* 2005, pp. 448-449; Maci´as-Duarte *et al.* 2009, p. 902; Manzano-Fischer *et al.* 2006, p. 3820). While the lack of regulatory mechanisms preventing habitat conversion on the wintering range in the United States and Mexico is likely contributing to the decline of the species, we have limited information at this time regarding whether the lack of regulatory mechanisms on the wintering grounds alone is a significant threat to the continued existence of the species.

Based on our review of the best scientific and commercial information available, we conclude that existing regulatory mechanisms are inadequate to protect the species and its habitat. The inadequacy of existing regulatory mechanisms therefore is a significant threat to the species, now and in the foreseeable future.

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

Climate Change

No information on the direct relationship between climate change and Sprague's pipit population trends is available; however, climate change could potentially impact the species. According to the IPCC (2007, p. 6), "warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level." Average Northern Hemisphere temperatures during the second half of the 20th century were very likely higher than during any other 50–year period in the last 500 years and likely the highest in at least the past 1,300 years (IPCC 2007, p. 6). It is very likely that over the past 50 years cold days, cold nights, and frosts have become less frequent over most land areas, and hot days and hot nights have become more frequent (IPCC 2007, p. 6). It is likely that heat waves have become more frequent over most land areas, and the frequency of heavy precipitation events has increased over most areas (IPCC 2007, p. 6).

Changes in the global climate system during the 21st century are likely to be larger than those observed during the 20th century (IPCC 2007, p. 19). For the next 2 decades, a warming of about 0.2 Celsius (°C) (0.4 Fahrenheit (°F)) per decade is projected (IPCC 2007, p. 19). Afterward, temperature projections increasingly depend on specific emission scenarios (IPCC 2007, p. 19). Various emissions scenarios suggest that by the end of the 21st century, average global temperatures are expected to increase 0.6 to 4.0 °C (1.1 to 7.2 °F), with the greatest warming expected over land (IPCC 2007, p. 20).

The IPCC (2007, pp. 22, 27) report outlines several scenarios that are virtually certain or very likely to occur in the 21st century, including:

(1) Over most land, there will be warmer and fewer cold days and nights, and warmer and more frequent hot days and nights;

(2) Areas affected by drought will increase; and

(3) The frequency of warm spells and heat waves over most land areas will likely increase.

The IPCC predicts that the resiliency of many ecosystems is likely to be exceeded this century by an unprecedented combination of climate change-associated disturbances (e.g., flooding, drought, wildfire, and insects) and other global drivers. With medium confidence, IPCC predicts that approximately 20 to 30 percent of plant and animal species assessed so far are likely to be at an increased risk of extinction if increases in global average temperature exceed 1.5 to 2.5 °C (3 to 5 °F). Given the large amount of land conversion that has already taken place throughout North America, it is not clear that the Sprague's pipit's range could shift into new areas in response to changes in climate.

There is some variability between models in projecting the effect of future climate change on Sprague's pipit breeding habitat. One model projected that the Sprague's pipit's breeding range would experience a wetter climate by the end of this century (U.S. Global Change Research Program Great Plains 2009, p. 125). In contrast, another model suggested that much of the remaining suitable habitat for Sprague's pipit nesting would likely become drier due to climate change (Johnson *et al.* 2005, p. 871).

In a 3–year study looking at a drought and post-drought period in western North Dakota, Sprague's pipit numbers declined in periods of drought, although they rebounded once the drought ended (George *et al.* 1992, pp. 275, 278-279). By contrast, a study comparing numbers from the BBS to moisture levels in eastern and northern North Dakota found that Sprague's pipit numbers actually increased during dry periods (Niemuth *et al.* 2008, pp. 213-217). However, amount of moisture was a relative descriptor and not constant between studies.

Sprague's pipits prefer areas with grassy cover and a low amount of bare ground (Dieni and Jones 2003, p. 392; Sutter 1997, p. 464). Extreme drought may lead to poor grass growth and thus less optimal habitat (Dieni and Jones 2003, pp. 393-395). While the species can increase in abundance after a short-term drought ends, climate change may lead to drier conditions in much of the Sprague's pipit's breeding range (Johnson *et al.* 2005, pp. 869-871), which may have more lasting impacts on the habitat and thus the Sprague's pipit (George *et al.* 1992, pp. 281-283).

Temperatures in the wintering range also are expected to rise, while precipitation is projected to decline (U.S. Global Change Research Program Southwest 2009, p. 125). Therefore, substantial landscape changes are expected in the wintering range (U.S. Global Change Research Program Southwest 2009, p. 131). These changes in temperature and precipitation throughout the species' range may have a large impact on ecosystems (U.S. Global Change Research Program Great Plains 2009, p. 126; U.S. Global Change Research Program Southwest 2009, p. 131) and thus the Sprague's pipit.

In the arid areas where Sprague's pipits migrate and winter, the amount of grass is driven by precipitation the previous year. The grass structure, in turn, influences migratory bird use of an area (Maci´as-Duarte *et al.* 2009, p. 901). As climate patterns change, the available suitable habitat in the migration and wintering areas may become less suitable for Sprague's pipits.

If, as predicted, climate change causes shifts in large-scale weather patterns, this would likely alter the optimal areas for the Sprague's pipit's breeding and wintering grounds. Since there is already limited grassland remaining, it is unlikely that there would be suitable habitat available elsewhere. However, there is not sufficient information at this time to determine the likely effects of climate change on the Sprague's pipit.

Chemical Use and Harassment in Agricultural Fields

The Sprague's pipit is primarily associated with grassland, but it is occasionally observed in cropland (Igl *et al.* 2008, pp. 280, 284). Agricultural practices on the wintering grounds may impact Sprague's pipits. The pesticide flowable carbofuran (brand name Furidan) was reportedly used in Mexico to protect crops against insects (Manzano-Fischer *et al.* 2006, p. 3821). This practice not only reduces the prey

base in the area, but also has been linked with the mortality of passerines nearby (Manzano-Fischer *et al.* 2006, p. 3821). The use of carbofuran is prohibited in the United States, and cancellation is being considered in Canada (Environmental Protection Agency 2010, p. 1; Health Canada 2009, p. 1). The use of carbofuran is currently legal in Mexico (Doucoure 2010, pers. comm.). However, since Sprague's pipits rarely use cropfields, carbofuran is unlikely to be causing major impacts to the species, even in places where it is still used.

Sprague's pipits primarily feed on arthropods, and have been sighted in sunflower fields, although their use of crop fields is rare (Igl *et al.* 2008, pp. 280-284; Hagy *et al.* 2007, p. 66; Wells 2007, p. 297). The poisoning of sunflower fields with grain bait used to kill blackbirds (Family: Icteridae) may impact Sprague's pipits (Hagy *et al.* 2007, p. 66). As discussed above, Sprague's pipits do not generally use crop fields, so the impacts of poisoning are limited.

Some sunflower growers harass birds, primarily several species of blackbirds that feed on their crops. Harassment of birds on cropland may negatively impact their energy stores during migration, when they may already be low on reserves (Hagy *et al.* 2007, pp. 62, 69). Any Sprague's pipits that are present in sunflower fields could be incidentally harassed out of those fields along with blackbirds and any other species present.

We acknowledge the potential for negative impacts on Sprague's pipit from harassment and poisoning in agricultural fields. Such impacts are likely minimal and localized as Sprague's pipits spend limited time in agricultural fields. Therefore, we determine the potential impacts of harassment and poisoning on Sprague's pipits to be low at this time. Thus, we have determined that pesticide use and harassment is not a significant threat to the Sprague's pipit.

Summary of Factor E

Due to the large level of uncertainty, we do not find climate change to be a significant threat to the species at this time. However, the IPCC states that warming of the climate is unequivocal (2007, p. 15). Additional information would improve our understanding of its effects on the species.

While chemical use to control insects likely has both direct and indirect effects on the Sprague's pipit, we have limited information regarding the scope of its use. Therefore, we do not have information to determine whether insecticide use is having a substantial impact on the species at this time. We do not believe that poisoning and harassment in agricultural fields pose a significant threat to Sprague's pipit population persistence. We conclude that the best scientific and commercial information available indicates that other natural or manmade factors are not a significant threat to the Sprague's pipit.

Finding

As required by the ESA, we conducted a review of the status of the species and considered the five factors in assessing whether the Sprague's pipit is endangered or threatened throughout all or a significant portion of its range. We examined the best scientific and commercial information available regarding the past, present, and future threats faced by the Sprague's pipit. We reviewed the petition, information available in our files, and other available published and unpublished information, and we consulted with Sprague's pipit and grassland bird experts and other Federal, State, and Canadian resource agencies.

In this review of the status of the species, we identified a number of threats under the five-factor analysis including: habitat fragmentation on the breeding grounds, energy development, roads, and inadequacy of existing regulatory mechanisms.

Native prairie is one of the most imperiled habitats worldwide, with loss rates approximating 70 percent in the United States and Canada, and prairie loss is accelerating. The remaining prairie is being converted to other land uses and is being increasingly fragmented, largely due to the development of wind, oil, and gas-generating facilities and associated roads and infrastructure. Land conversion is likely impacting the species throughout its range, but the effects of fragmentation most strongly impact the species on the breeding grounds. Because Sprague's pipits avoid unsuitable landscape features in breeding territories, the effect of a change in the landscape is magnified beyond the simple footprint of the disturbance. Only approximately 2 percent of the species' historical U.S. range remains in potentially suitable habitat. When we included the effects of fragmentation and disturbance, the remaining suitable habitat declined even further to 1.55 to1.86 percent of the historical breeding habitat in the United States and between 5 and 6 percent of the historical breeding range in Canada remaining in large enough patches to support nesting territories. This loss of suitable habitat will likely continue and accelerate for the foreseeable future with the increase in energy development throughout much of the species' range. We estimate that habitat will likely continue to be converted from native prairie at a rate of approximately 32,000 ha (78,000 ac) annually, with a total potential conversion of 640,000 ha (1.6 million ac) in 20 years within the U.S. breeding range. In addition, wind power has the potential to impact a substantial amount of the suitable habitat remaining within the range. With limited exceptions, existing regulatory mechanisms do not protect the species' habitat from development.

The evidence we have at this time suggests that while grazing, mowing, overutilization, predation, cowbird parasitism, harassment and chemical use may have some impacts on Sprague's pipits, these effects are unlikely to be influencing the population as a whole. Climate change may lead to large-scale population level impacts if it causes changes in the remaining suitable habitat. The available information strongly suggests that changes in the global climate system are likely to impact rainfall and temperature throughout the Sprague's pipits' range, but the nature and magnitude of these changes on the Sprague's pipit population is unknown at this time. While there are some broad estimates of how climate change will impact the central region of North America, many uncertainties remain. Land conversion, fragmentation of habitat, and inadequacy of regulatory mechanisms to halt habitat loss are causing a significant decline in the Sprague's pipit population, such that listing is warranted.

Both the BBS and the CBC data show long-term, sustained declines in the Sprague's pipit population of 3.23 to 3.9 percent annually and a 73 to 80 percent decline over the past 40 years. These surveys provide an indication of population trends. The evidence for decline is particularly strong because these two lines of independent evidence both point to the same conclusion. Even though the surveys take place in different parts of the species' range (breeding and wintering) and use different methodologies, the resulting estimates for population trend are remarkably similar. The only available population estimate comes from the BBS data, estimating the population at approximately 870,000 in 1995 (Blancher *et al.* 2007 p. 27). The population trend since that time has continued to decline, suggesting that the population is approximately 479,000

today, assuming a continued population decline of 3.9 percent annually.

Prairie habitat loss and fragmentation has resulted in only 1.55 to1.86 percent of the historical breeding habitat in the United States and between 5 and 6 percent of the historical breeding range in Canada remaining in patches large enough to support nesting. We expect current habitat loss and fragmentation to continue into the future. Farm policy and practices continue to provide economic incentives for farmers to convert native prairie into cropland, while advances in farming (herbicide resistant crops and the advent of no-till planting) contribute to decisions to convert prairie to cropland. The historic primary impact to the Sprague's pipit population has been land conversion to cropland. While land conversion to cropland is ongoing and remains a chronic threat, the major threat in the future is further fragmentation and degradation of native prairie habitat from the rapid expansion of oil and gas production and wind farm development. While there are approximately 10 million ha (25 million ac) of native prairie remaining in the U.S. range, only approximately 7 million ha (17 million ac) of this habitat remains in large enough patches to be used by breeding Sprague's pipits. Similarly, in the Canadian range, only approximately 3 to 4 million ha (7.4 to 9.9 million ac) remains in patches large enough to be used by breeding Sprague's pipits. Even this remaining habitat is becoming increasingly fragmented through continued conversion and fragmentation, especially due to energy development. As the amount of suitable habitat declines, the quality is also reduced, because the remaining habitat is increasingly fragmented, with more edge effects and greater impact from predators, cowbirds, and weed incursion. We anticipate the current rate of population decline (3.23 to 3.9 percent annually) to continue, and possibly increase, into the future due to the current and future loss of suitable breeding habitat. Given the current and anticipated decline in suitable habitat on both the breeding and wintering grounds, the inadequacy of existing regulatory mechanisms to protect remaining habitat, and the long-term, ongoing population decline, we find that listing the Sprague's pipit throughout its range (United States, Canada, and Mexico) is warranted.

This status review identified threats to the Sprague's pipit attributable to Factors A and D. The primary threat to the species is from habitat conversion and fragmentation (Factor A), especially due to native prairie conversion to other uses and fragmentation from energy (oil, gas, and wind) development.

On the basis of the best scientific and commercial information available, we find that the petitioned action, listing the Sprague's pipit as endangered or threatened, is warranted. We will make a determination on the status of the species as endangered or threatened when we prepare a proposed listing determination. However, as explained in more detail below, an immediate proposal of a regulation implementing this action is precluded by higher priority listing actions, and progress is being made to add or remove qualified species from the Lists of Endangered and Threatened Wildlife and Plants.

We reviewed the available information to determine if the existing and foreseeable threats render the species at risk of extinction now such that issuing an emergency regulation temporarily listing the species under section 4(b)(7) of the ESA is warranted. We determined that issuing an emergency regulation temporarily listing the species is not warranted for this species at this time, because while the population shows a long-term sustained decline, there is sufficient habitat remaining to prevent the species' numbers from plummeting drastically in the short term. Additionally, while we believe that both the U.S. and Canadian portions of the breeding range are necessary for the long-term survival of the species, the protections afforded in Canada under SARA should somewhat buffer the species' decline. However, if at any time we determine that issuing an emergency regulation temporarily listing the Sprague's pipit is warranted, we will initiate the action at that time.

Listing Priority Number

The Service adopted guidelines on September 21, 1983 (48 FR 43098), to establish a rational system for utilizing available resources for the highest priority species when adding species to the Lists of Endangered or Threatened Wildlife and Plants or reclassifying species listed as threatened to endangered status. These guidelines, titled "Endangered and Threatened Species Listing and Recovery Priority Guidelines" address the immediacy and magnitude of threats, and the level of taxonomic distinctiveness by assigning priority in descending order to monotypic genera (genus with one species), full species, and subspecies (or equivalently, distinct population segments of vertebrates). We assigned the Sprague's pipit an LPN of 2 based on our finding that the species faces threats that are of high magnitude and are imminent. These threats include the present or threatened destruction, modification, or curtailment of its habitat and the inadequacy of existing regulatory mechanisms. This is the highest priority that can be provided to a species under our guidance. Our rationale for assigning the Sprague's pipit an LPN 2 is outlined below.

Under the Service's LPN Guidance, the magnitude of threat is the first criterion we look at when establishing a listing priority. The guidance indicates that species with the highest magnitude of threat are those species facing the greatest threats to their continued existence. These species receive the highest listing priority. The threats that the Sprague's pipit faces are high in magnitude because the major threats (habitat conversion and fragmentation, energy development, inadequacy of regulatory mechanisms) occur throughout all of the species' range. Based on an evaluation of suitable habitat remaining in the species' breeding range, we determined that less than 2 percent of the U.S. range and only about 6 percent of the Canadian range remain in a suitable habitat type for the Sprague's pipit to breed. Habitat loss through grassland conversion was historically a major threat to the species, with approximately 98 percent of the U.S. breeding range lost to habitat conversion. On the remaining 2 percent of U.S. breeding range, grassland conversion is still occurring at a rate of approximately 32,000 ha (78,000 ac) per year. While conversion continues to reduce the amount of habitat available, energy development is the current and projected future major threat to the species. The amount of oil and gas and wind development has been increasing rapidly (Manville 2009, p. 1; Macpherson 2010, p. 1), and is expected to continue to do so into the foreseeable future. Wind development alone has the potential to impact from 14 to 16 million ha (33 to 39 million ac) in the U.S. breeding range. In North Dakota alone, oil and gas development could impact approximately 570,000 ha (1.4 million ac) within the Sprague's pipit range in 20 years. Both oil and gas and the wind development are land intensive, causing wide-scale fragmentation and degradation of the remaining grassland making it unsuitable for this species. There is less specific information available on the wintering grounds, but the data available indicate that large areas of the wintering grounds are being converted from grassland habitat. The documented, long-term, continuous population decline indicates that loss of

habitat is having a population-level effect.

Adequate regulations are not in place at the local, State, or Federal level to adequately minimize the threat of habitat degradation and fragmentation. Regulatory mechanisms do not exist to prevent large-scale changes to prairie habitat. Energy development (oil, gas, and wind) and associated infrastructure is projected to increase throughout the Sprague's pipit's range, further precluding the species' use of large portions for breeding or wintering activities. There are not adequate regulations related to placement and spacing of these energy features to avoid impacts to remaining unfragmented grassland habitat. We believe the ability of the Sprague's pipit population to stabilize or increase over the long term is highly diminished given the landscape-level changes that are occurring. Thus, we believe that the available information indicates that the magnitude of threats is high.

Under our LPN Guidance, the second criterion we consider in assigning a listing priority is the immediacy of threats. This criterion is intended to ensure that the species that face actual, identifiable threats are given priority over those for which threats are only potential or that are intrinsically vulnerable but are not known to be presently facing such threats. The threats are imminent because we have factual information that the threats are identifiable and that the species is currently facing them throughout all portions of its breeding range and in large portions of its wintering range. These actual, identifiable threats are covered in detail under the discussion of Factors A and D of this finding and currently include habitat conversion and fragmentation and inadequate regulatory mechanisms. In addition to their current existence, we expect these threats to continue and likely intensify in the foreseeable future. State agency representatives, energy industry spokesmen, and researchers anticipate that the amount of wind and oil and gas development will increase in the northern Great Plains for the foreseeable future. Since both oil and gas and wind development are occurring in areas that remain in native prairie, we believe that the impacts of increased development will further reduce the remaining suitable Sprague's pipit habitat.

The third criterion in our LPN guidance is intended to devote resources to those species representing highly distinctive or isolated gene pools as reflected by taxonomy. The Sprague's pipit is a valid taxon at the species level, and therefore receives a higher priority than subspecies or DPSs, but a lower priority than species in a monotypic genus.

The Sprague's pipit faces high magnitude, imminent threats, and is a valid taxon at the species level. Thus, in accordance with our LPN guidance, we have assigned the Sprague's pipit an LPN of 2.

We will continue to monitor the threats to the Sprague's pipit, and the species' status on an annual basis, and should the magnitude or the imminence of the threats change, we will revisit our assessment of the LPN.

Work on a proposed listing determination for the Sprague's pipit is precluded by work on higher priority listing actions with absolute statutory, court-ordered, or court-approved deadlines and final listing determinations for those species that were proposed for listing with funds from Fiscal Year 2009. This work includes all the actions listed in the tables below under expeditious progress.

Preclusion and Expeditious Progress

Preclusion is a function of the listing priority of a species in relation to the resources that are available and competing demands for those resources. Thus, in any given fiscal year (FY), multiple factors dictate whether it will be possible to undertake work on a proposed listing regulation or whether promulgation of such a proposal is warranted but precluded by higher-priority listing actions.

The resources available for listing actions are determined through the annual Congressional appropriations process. The appropriation for the Service Listing Program is available to support work involving the following listing actions: Proposed and final listing rules; 90–day and 12–month findings on petitions to add species to the Lists of Endangered and Threatened Wildlife and Plants (Lists) or to change the status of a species from threatened to endangered; annual determinations on prior "warranted but precluded" petition findings as required under section 4(b)(3)(C)(i) of the Act; critical habitat petition findings; proposed and final rules designating critical habitat; and litigation-related, administrative, and program-management functions (including preparing and allocating budgets, responding to Congressional and public inquiries, and conducting public outreach regarding listing and critical habitat). The work involved in preparing various listing documents can be extensive and may include, but is not limited to: Gathering and assessing the best scientific and commercial data available and conducting analyses used as the basis for our decisions; writing and publishing documents; and obtaining, reviewing, and evaluating public comments and peer review comments on proposed rules and incorporating relevant information into final rules. The number of listing actions that we can undertake in a given year also is influenced by the complexity of those listing actions; that is, more complex actions generally are more costly. The median cost for preparing and publishing a 90–day finding is $39, 276; for a 12–month finding, $100,690; for a proposed rule with critical habitat, $345,000; and for a final listing rule with critical habitat, the median cost is $305,000.

We cannot spend more than is appropriated for the Listing Program without violating the Anti-Deficiency Act (see 31 U.S.C. 1341(a)(1)(A)). In addition, in FY 1998 and for each fiscal year since then, Congress has placed a statutory cap on funds which may be expended for the Listing Program, equal to the amount expressly appropriated for that purpose in that fiscal year. This cap was designed to prevent funds appropriated for other functions under the Act (for example, recovery funds for removing species from the Lists), or for other Service programs, from being used for Listing Program actions (see House Report 105-163, 105th Congress, 1st Session, July 1, 1997).

Since FY 2002, the Service's budget has included a critical habitat subcap to ensure that some funds are available for other work in the Listing Program ("The critical habitat designation subcap will ensure that some funding is available to address other listing activities" (House Report No. 107 - 103, 107th Congress, 1st Session, June 19, 2001)). In FY 2002 and each year until FY 2006, the Service has had to use virtually the entire critical habitat subcap to address court-mandated designations of critical habitat, and consequently none of the critical habitat subcap funds have been available for other listing activities. In FY 2007, we were able to use some of the critical habitat subcap funds to fund proposed listing determinations for high-priority candidate species. In FY 2009, while we were unable to use any of the critical habitat subcap funds to fund proposed listing determinations, we did use some of this money to fund the critical habitat portion of some proposed listing determinations so that the proposed listing determination and proposed critical habitat designation could be combined into one rule, thereby being more efficient in our work. In FY 2010, we are using some of

the critical habitat subcap funds to fund actions with statutory deadlines.

Thus, through the listing cap, the critical habitat subcap, and the amount of funds needed to address court-mandated critical habitat designations, Congress and the courts have in effect determined the amount of money available for other listing activities. Therefore, the funds in the listing cap, other than those needed to address court-mandated critical habitat for already listed species, set the limits on our determinations of preclusion and expeditious progress.

Congress also recognized that the availability of resources was the key element in deciding, when making a 12–month petition finding, whether we would prepare and issue a listing proposal or instead make a "warranted but precluded" finding for a given species. The Conference Report accompanying Public Law 97-304, which established the current statutory deadlines and the warranted-but-precluded finding, states (in a discussion on 90–day petition findings that by its own terms also covers 12–month findings) that the deadlines were "not intended to allow the Secretary to delay commencing the rulemaking process for any reason other than that the existence of pending or imminent proposals to list species subject to a greater degree of threat would make allocation of resources to such a petition [that is, for a lower-ranking species] unwise."

In FY 2010, expeditious progress is that amount of work that can be achieved with $10,471,000, which is the amount of money that Congress appropriated for the Listing Program (that is, the portion of the Listing Program funding not related to critical habitat designations for species that are already listed). However these funds are not enough to fully fund all our court-ordered and statutory listing actions in FY 2010, so we are using $1,114,417 of our critical habitat subcap funds in order to work on all of our required petition findings and listing determinations. This brings the total amount of funds we have for listing actions in FY 2010 to $11,585,417. Our process is to make our determinations of preclusion on a nationwide basis to ensure that the species most in need of listing will be addressed first and also because we allocate our listing budget on a nationwide basis. The $11,585,417 is being used to fund work in the following categories: compliance with court orders and court-approved settlement agreements requiring that petition findings or listing determinations be completed by a specific date; section 4 (of the Act) listing actions with absolute statutory deadlines; essential litigation-related, administrative, and listing program-management functions; and high-priority listing actions for some of our candidate species. In 2009, the responsibility for listing foreign species under the Act was transferred from the Division of Scientific Authority, International Affairs Program, to the Endangered Species Program. Starting in FY 2010, a portion of our funding is being used to work on the actions described above as they apply to listing actions for foreign species. This has the potential to further reduce funding available for domestic listing actions. Although there are currently no foreign species issues included in our high-priority listing actions at this time, many actions have statutory or court-approved settlement deadlines, thus increasing their priority. The allocations for each specific listing action are identified in the Service's FY 2010 Allocation Table (part of our administrative record).

Based on our September 21, 1983, guidance for assigning an LPN for each candidate species (48 FR 43098), we have a significant number of species with a LPN of 2. Using this guidance, we assign each candidate an LPN of 1 to 12, depending on the magnitude of threats (high vs. moderate to low), immediacy of threats (imminent or nonimminent), and taxonomic status of the species (in order of priority: monotypic genus (a species that is the sole member of a genus); species; or part of a species (subspecies, distinct population segment, or significant portion of the range)). The lower the listing priority number, the higher the listing priority (that is, a species with an LPN of 1 would have the highest listing priority). Because of the large number of high-priority species, we have further ranked the candidate species with an LPN of 2 by using the following extinction-risk type criteria: International Union for the Conservation of Nature and Natural Resources (IUCN) Red list status/rank, Heritage rank (provided by NatureServe), Heritage threat rank (provided by NatureServe), and species currently with fewer than 50 individuals, or 4 or fewer populations. Those species with the highest IUCN rank (critically endangered), the highest Heritage rank (G1), the highest Heritage threat rank (substantial, imminent threats), and currently with fewer than 50 individuals, or fewer than 4 populations, originally comprised a group of approximately 40 candidate species ("Top 40"). These 40 candidate species have had the highest priority to receive funding to work on a proposed listing determination. As we work on proposed and final listing rules for those 40 candidates, we apply the ranking criteria to the next group of candidates with an LPN of 2 and 3 to determine the next set of highest priority candidate species.

To be more efficient in our listing process, as we work on proposed rules for the highest priority species in the next several years, we are preparing multi-species proposals when appropriate, and these may include species with lower priority if they overlap geographically or have the same threats as a species with an LPN of 2. In addition, available staff resources are also a factor in determining high-priority species provided with funding. Finally, proposed rules for reclassification of threatened species to endangered are lower priority, since as listed species, they are already afforded the protection of the Act and implementing regulations.

We assigned the Sprague's pipit an LPN of 2, based on our finding that the species faces immediate and high magnitude threats from the present or threatened destruction, modification, or curtailment of its habitat and from the inadequacy of existing regulatory mechanisms. Under our 1983 Guidelines, a "species" facing imminent high-magnitude threats is assigned an LPN of 1, 2, or 3 depending on its taxonomic status. Because the Sprague's pipit is a species, we assigned it an LPN of 2 (the highest category available for a species). Therefore, work on a proposed listing determination for the Sprague's pipit is precluded by work on higher priority candidate species; listing actions with absolute statutory, court ordered, or court-approved deadlines; and final listing determinations for those species that were proposed for listing with funds from previous fiscal years. This work includes all the actions listed in the tables below under expeditious progress.

As explained above, a determination that listing is warranted but precluded must also demonstrate that expeditious progress is being made to add or remove qualified species to and from the Lists of Endangered and Threatened Wildlife and Plants. (Although we do not discuss it in detail here, we are also making expeditious progress in removing species from the Lists under the Recovery program, which is funded by a separate line item in the budget of the Endangered Species Program. As explained above in our description of the statutory cap on Listing Program

funds, the Recovery Program funds and actions supported by them cannot be considered in determining expeditious progress made in the Listing Program.) As with our "precluded" finding, expeditious progress in adding qualified species to the Lists is a function of the resources available and the competing demands for those funds. Given that limitation, we find that we are making progress in FY 2010 in the Listing Program. This progress included preparing and publishing the following determinations:

FY 2010 COMPLETED LISTING ACTIONS

Publication Date	Title	Actions	FR Pages
10/08/2009	Listing *Lepidium papilliferum* (Slickspot Peppergrass) as a Threatened Species Throughout Its Range	Final Listing Threatened	74 FR 52013-52064
10/27/2009	90-day Finding on a Petition To List the American Dipper in the Black Hills of South Dakota as Threatened or Endangered	Notice of 90–day Petition Finding, Not substantial	74 FR 55177-55180
10/28/2009	Status Review of Arctic Grayling (*Thymallus arcticus*) in the Upper Missouri River System	Notice of Intent to Conduct Status Review	74 FR 55524-55525
11/03/2009	Listing the British Columbia Distinct Population Segment of the Queen Charlotte Goshawk Under the Endangered Species Act: Proposed rule.	Proposed Listing Threatened	74 FR 56757-56770
11/03/2009	Listing the Salmon-Crested Cockatoo as Threatened Throughout Its Range with Special Rule	Proposed Listing Threatened	74 FR 56770-56791
11/23/2009	Status Review of Gunnison sage-grouse (*Centrocercus minimus*)	Notice of Intent to Conduct Status Review	74 FR 61100-61102
12/03/2009	12-Month Finding on a Petition to List the Black-tailed Prairie Dog as Threatened or Endangered	Notice of 12–month petition finding, Not warranted	74 FR 63343-63366
12/03/2009	90-Day Finding on a Petition to List Sprague's Pipit as Threatened or Endangered	Notice of 90–day Petition Finding, Substantial	74 FR 63337-63343
12/15/2009	90-Day Finding on Petitions To List Nine Species of Mussels From Texas as Threatened or Endangered With Critical Habitat	Notice of 90–day Petition Finding, Substantial	74 FR 66260-66271
12/16/2009	Partial 90-Day Finding on a Petition to List 475 Species in the Southwestern United States as Threatened or Endangered With Critical Habitat	Notice of 90–day Petition Finding, Not substantial and Substantial	74 FR 66865-66905
12/17/2009	12–month Finding on a Petition To Change the Final Listing of the Distinct Population Segment of the Canada Lynx To Include New Mexico	Notice of 12–month petition finding, Warranted but precluded	74 FR 66937-66950
1/05/2010	Listing Foreign Bird Species in Peru and Bolivia as Endangered Throughout Their Range	Proposed Listing Endangered	75 FR 605-649
1/05/2010	Listing Six Foreign Birds as Endangered Throughout Their Range	Proposed Listing Endangered	75 FR 286-310
1/05/2010	Withdrawal of Proposed Rule to List Cook's Petrel	Proposed rule, withdrawal	75 FR 310-316
1/05/2010	Final Rule to List the Galapagos Petrel and Heinroth's Shearwater as Threatened Throughout Their Ranges	Final Listing Threatened	75 FR 235-250
1/20/2010	Initiation of Status Review for *Agave eggersiana* and *Solanum conocarpum*	Notice of Intent to Conduct Status Review	75 FR 3190-3191
2/09/2010	12–month Finding on a Petition to List the American Pika as Threatened or Endangered	Notice of 12–month petition finding, Not warranted	75 FR 6437-6471
2/25/2010	12-Month Finding on a Petition To List the Sonoran Desert Population of the Bald Eagle as a Threatened or Endangered Distinct Population Segment	Notice of 12–month petition finding, Not warranted	75 FR 8601-8621

FY 2010 COMPLETED LISTING ACTIONS—Continued

Publication Date	Title	Actions	FR Pages
2/25/2010	Withdrawal of Proposed Rule To List the Southwestern Washington/ Columbia River Distinct Population Segment of Coastal Cutthroat Trout (*Oncorhynchus clarki clarki*) as Threatened	Withdrawal of Proposed Rule to List	75 FR 8621-8644
3/18/2010	90-Day Finding on a Petition to List the Berry Cave salamander as Endangered	Notice of 90–day Petition Finding, Substantial	75 FR 13068-13071
3/23/2010	90-Day Finding on a Petition to List the Southern Hickorynut Mussel (*Obovaria jacksoniana*) as Endangered or Threatened	Notice of 90–day Petition Finding, Not substantial	75 FR 13717-13720
3/23/2010	90-Day Finding on a Petition to List the Striped Newt as Threatened	Notice of 90–day Petition Finding, Substantial	75 FR 13720-13726
3/23/2010	12-Month Findings for Petitions to List the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered	Notice of 12–month petition finding, Warranted but precluded	75 FR 13910-14014
3/31/2010	12-Month Finding on a Petition to List the Tucson Shovel-Nosed Snake (*Chionactis occipitalis klauberi*) as Threatened or Endangered with Critical Habitat	Notice of 12–month petition finding, Warranted but precluded	75 FR 16050-16065
4/5/2010	90-Day Finding on a Petition To List Thorne's Hairstreak Butterfly as or Endangered	Notice of 90–day Petition Finding, Substantial	75 FR 17062-17070
4/6/2010	12–month Finding on a Petition To List the Mountain Whitefish in the Big Lost River, Idaho, as Endangered or Threatened	Notice of 12–month petition finding, Not warranted	75 FR 17352-17363
4/6/2010	90-Day Finding on a Petition to List a Stonefly (*Isoperla jewetti*) and a Mayfly (*Fallceon eatoni*) as Threatened or Endangered with Critical Habitat	Notice of 90–day Petition Finding, Not substantial	75 FR 17363-17367
4/7/2010	12-Month Finding on a Petition to Reclassify the Delta Smelt From Threatened to Endangered Throughout Its Range	Notice of 12–month petition finding, Warranted but precluded	75 FR 17667-17680
4/13/2010	Determination of Endangered Status for 48 Species on Kauai and Designation of Critical Habitat	Final Listing Endangered	75 FR 18959-19165
4/15/2010	Initiation of Status Review of the North American Wolverine in the Contiguous United States	Notice of Initiation of Status Review	75 FR 19591-19592
4/15/2010	12-Month Finding on a Petition to List the Wyoming Pocket Gopher as Endangered or Threatened with Critical Habitat	Notice of 12–month petition finding, Not warranted	75 FR 19592-19607
4/16/2010	90-Day Finding on a Petition to List a Distinct Population Segment of the Fisher in Its United States Northern Rocky Mountain Range as Endangered or Threatened with Critical Habitat	Notice of 90–day Petition Finding, Substantial	75 FR 19925-19935
4/20/2010	Initiation of Status Review for Sacramento splittail (*Pogonichthys macrolepidotus)*	Notice of Initiation of Status Review	75 FR 20547-20548
4/26/2010	90-Day Finding on a Petition to List the Harlequin Butterfly as Endangered	Notice of 90–day Petition Finding, Substantial	75 FR 21568-21571
4/27/2010	12-Month Finding on a Petition to List Susan's Purse-making Caddisfly (*Ochrotrichia susanae*) as Threatened or Endangered	Notice of 12–month petition finding, Not warranted	75 FR 22012-22025
4/27/2010	90–day Finding on a Petition to List the Mohave Ground Squirrel as Endangered with Critical Habitat	Notice of 90–day Petition Finding, Substantial	75 FR 22063-22070

FY 2010 COMPLETED LISTING ACTIONS—Continued

Publication Date	Title	Actions	FR Pages
5/4/2010	90-Day Finding on a Petition to List Hermes Copper Butterfly as Threatened or Endangered	Notice of 90–day Petition Finding, Substantial	75 FR 23654-23663
6/1/2010	90-Day Finding on a Petition To List *Castanea pumila* var. *ozarkensis*	Notice of 90–day Petition Finding, Substantial	75 FR 30313-30318
6/1/2010	12–month Finding on a Petition to List the White-tailed Prairie Dog as Endangered or Threatened	Notice of 12–month petition finding, Not warranted	75 FR 30338-30363
6/9/2010	90-Day Finding on a Petition To List van Rossem's Gull-billed Tern as Endangered orThreatened.	Notice of 90–day Petition Finding, Substantial	75 FR 32728-32734
6/16/2010	90-Day Finding on Five Petitions to List Seven Species of Hawaiian Yellow-faced Bees as Endangered	Notice of 90–day Petition Finding, Substantial	75 FR 34077-34088
6/22/2010	12-Month Finding on a Petition to List the Least Chub as Threatened or Endangered	Notice of 12–month petition finding, Warranted but precluded	75 FR 35398-35424
6/23/2010	90-Day Finding on a Petition to List the Honduran Emerald Hummingbird as Endangered	Notice of 90–day Petition Finding, Substantial	75 FR 35746-35751
6/23/2010	Listing *Ipomopsis polyantha* (Pagosa Skyrocket) as Endangered Throughout Its Range, and Listing *Penstemon debilis* (Parachute Beardtongue) and *Phacelia submutica* (DeBeque Phacelia) as Threatened Throughout Their Range	Proposed Listing Endangered Proposed Listing Threatened	75 FR 35721-35746
6/24/2010	Listing the Flying Earwig Hawaiian Damselfly and Pacific Hawaiian Damselfly As Endangered Throughout Their Ranges	Final Listing Endangered	75 FR 35990-36012
6/24/2010	Listing the Cumberland Darter, Rush Darter, Yellowcheek Darter, Chucky Madtom, and Laurel Dace as Endangered Throughout Their Ranges	Proposed Listing Endangered	75 FR 36035-36057
6/29/2010	Listing the Mountain Plover as Threatened	Reinstatement of Proposed Listing Threatened	75 FR 37353-37358
7/20/2010	90-Day Finding on a Petition to List *Pinus albicaulis* (Whitebark Pine) as Endangered or Threatened with Critical Habitat	Notice of 90–day Petition Finding, Substantial	75 FR 42033-42040
7/20/2010	12-Month Finding on a Petition to List the Amargosa Toad as Threatened or Endangered	Notice of 12–month petition finding, Not warranted	75 FR 42040-42054
7/20/2010	90-Day Finding on a Petition to List the Giant Palouse Earthworm (*Driloleirus americanus*) as Threatened or Endangered	Notice of 90–day Petition Finding, Substantial	75 FR 42059-42066
7/27/2010	Determination on Listing the Black-Breasted Puffleg as Endangered Throughout its Range; Final Rule	Final Listing Endangered	75 FR 43844-43853
7/27/2010	Final Rule to List the Medium Tree-Finch (*Camarhynchus pauper*) as Endangered Throughout Its Range	Final Listing Endangered	75 FR 43853-43864
8/3/2010	Determination of Threatened Status for Five Penguin Species	Final Listing Threatened	75 FR 45497-45527
8/4/2010	90-Day Finding on a Petition To List the Mexican Gray Wolf as an Endangered Subspecies With Critical Habitat	Notice of 90–day Petition Finding, Substantial	75 FR 46894-46898

FY 2010 COMPLETED LISTING ACTIONS—Continued

Publication Date	Title	Actions	FR Pages
8/10/2010	90-Day Finding on a Petition to List *Arctostaphylos franciscana* as Endangered with Critical Habitat	Notice of 90–day Petition Finding, Substantial	75 FR 48294-48298
8/17/2010	Listing Three Foreign Bird Species from Latin America and the Caribbean as Endangered Throughout Their Range	Final Listing Endangered	75 FR 50813-50842
8/17/2010	90-Day Finding on a Petition to List Brian Head Mountainsnail as Endangered or Threatened with Critical Habitat	Notice of 90–day Petition Finding, Not substantial	75 FR 50739-50742
8/24/2010	90-Day Finding on a Petition to List the Oklahoma Grass Pink Orchid as Endangered or Threatened	Notice of 90–day Petition Finding, Substantial	75 FR 51969-51974
9/1/2010	12-Month Finding on a Petition to List the White-Sided Jackrabbit as Threatened or Endangered	Notice of 12–month petition finding, Not warranted	75 FR 53615-53629
9/8/2010	Proposed Rule To List the Ozark Hellbender Salamander as Endangered	Proposed Listing Endangered	75 FR 54561-54579
9/8/2010	Revised 12-Month Finding to List the Upper Missouri River Distinct Population Segment of Arctic Grayling as Endangered or Threatened	Notice of 12–month petition finding, Warranted but precluded	75 FR 54707-54753
9/9/2010	12-Month Finding on a Petition to List the Jemez Mountains Salamander (*Plethodon neomexicanus*) as Endangered or Threatened with Critical Habitat	Notice of 12–month petition finding, Warranted but precluded	75 FR 54822-54845

Our expeditious progress also includes work on listing actions that we funded in FY 2010 but have not yet been completed to date. These actions are listed below. Actions in the top section of the table are being conducted under a deadline set by a court. Actions in the middle section of the table are being conducted to meet statutory timelines, that is, timelines required under the Act. Actions in the bottom section of the table are high-priority listing actions. These actions include work primarily on species with an LPN of 2, and selection of these species is partially based on available staff resources, and when appropriate, include species with a lower priority if they overlap geographically or have the same threats as the species with the high priority. Including these species together in the same proposed rule results in considerable savings in time and funding, as compared to preparing separate proposed rules for each of them in the future.

ACTIONS FUNDED IN FY 2010 BUT NOT YET COMPLETED

Species	Action
Actions Subject to Court Order/Settlement Agreement	
6 Birds from Eurasia	Final listing determination
African penguin	Final listing determination
Flat-tailed horned lizard	Final listing determination
Mountain plover[4]	Final listing determination
6 Birds from Peru	Proposed listing determination
Sacramento splittail	12–month petition finding
Pacific walrus	12–month petition finding
Gunnison sage-grouse	12–month petition finding
Wolverine	12–month petition finding
Agave eggergsiana	12–month petition finding

ACTIONS FUNDED IN FY 2010 BUT NOT YET COMPLETED—Continued

Species	Action
Solanum conocarpum	12–month petition finding
Sprague's pipit	12–month petition finding
Desert tortoise – Sonoran population	12–month petition finding
Pygmy rabbit (rangewide)[1]	12–month petition finding
Thorne's Hairstreak butterfly[3]	12–month petition finding
Hermes copper butterfly[3]	12–month petition finding
Actions with Statutory Deadlines	
Casey's june beetle	Final listing determination
Georgia pigtoe, interrupted rocksnail, and rough hornsnail	Final listing determination
7 Bird species from Brazil	Final listing determination
Southern rockhopper penguin – Campbell Plateau population	Final listing determination
5 Bird species from Colombia and Ecuador	Final listing determination
Queen Charlotte goshawk	Final listing determination
5 species southeast fish (Cumberland darter, rush darter, yellowcheek darter, chucky madtom, and laurel dace)	Final listing determination
Salmon crested cockatoo	Proposed listing determination
CA golden trout	12–month petition finding
Black-footed albatross	12–month petition finding
Mount Charleston blue butterfly	12–month petition finding
Mojave fringe-toed lizard[1]	12–month petition finding
Kokanee – Lake Sammamish population[1]	12–month petition finding
Cactus ferruginous pygmy-owl[1]	12–month petition finding
Northern leopard frog	12–month petition finding
Tehachapi slender salamander	12–month petition finding
Coqui Llanero	12–month petition finding
Dusky tree vole	12–month petition finding
3 MT invertebrates (mist forestfly*(Lednia tumana*), *Oreohelix* sp.3, *Oreohelix* sp. 31) from 206 species petition	12–month petition finding
5 UT plants *(Astragalus hamiltonii*, *Eriogonum soredium*, *Lepidium ostleri*, *Penstemon flowersii*, *Trifolium friscanum*) from 206 species petition	12–month petition finding
2 CO plants *(Astragalus microcymbus*, *Astragalus schmolliae*) from 206 species petition	12–month petition finding
5 WY plants *(Abronia ammophila*, *Agrostis* rossiae, *Astragalus proimanthus*, *Boechere (Arabis*) *pusilla*, *Penstemon gibbensii*) from 206 species petition	12–month petition finding
Leatherside chub (from 206 species petition)	12–month petition finding
Frigid ambersnail (from 206 species petition)	12–month petition finding
Gopher tortoise – eastern population	12–month petition finding
Wrights marsh thistle	12–month petition finding
67 of 475 southwest species	12–month petition finding
Grand Canyon scorpion (from 475 species petition)	12–month petition finding

ACTIONS FUNDED IN FY 2010 BUT NOT YET COMPLETED—Continued

Species	Action
Anacroneuria wipukupa (a stonefly from 475 species petition)	12–month petition finding
Rattlesnake-master borer moth (from 475 species petition)	12–month petition finding
3 Texas moths *(Ursia furtiva*, *Sphingicampa blanchardi*, *Agapema galbina*) (from 475 species petition)	12–month petition finding
2 Texas shiners *(Cyprinella* sp., *Cyprinella lepida*) (from 475 species petition)	12–month petition finding
3 South Arizona plants *(Erigeron piscaticus*, *Astragalus hypoxylus*, *Amoreuxia gonzalezii*) (from 475 species petition)	12–month petition finding
5 Central Texas mussel species (3 from 474 species petition)	12–month petition finding
14 parrots (foreign species)	12–month petition finding
Berry Cave salamander[1]	12–month petition finding
Striped Newt[1]	12–month petition finding
Fisher – Northern Rocky Mountain Range[1]	12–month petition finding
Mohave Ground Squirrel[1]	12–month petition finding
Puerto Rico Harlequin Butterfly	12–month petition finding
Western gull-billed tern	12–month petition finding
Ozark chinquapin *(Castanea pumila* var. *ozarkensis*)	12–month petition finding
HI yellow-faced bees	12–month petition finding
Giant Palouse earthworm	12–month petition finding
Whitebark pine	12–month petition finding
OK grass pink *(Calopogon oklahomensis*)[1]	12–month petition finding
Southeastern pop snowy plover & wintering pop. of piping plover[1]	90–day petition finding
Eagle Lake trout[1]	90–day petition finding
Smooth-billed ani[1]	90–day petition finding
Bay Springs salamander[1]	90–day petition finding
32 species of snails and slugs[1]	90–day petition finding
42 snail species (Nevada & Utah)	90–day petition finding
Red knot *roselaari* subspecies	90–day petition finding
Peary caribou	90–day petition finding
Plains bison	90–day petition finding
Spring Mountains checkerspot butterfly	90–day petition finding
Spring pygmy sunfish	90–day petition finding
Bay skipper	90–day petition finding
Unsilvered fritillary	90–day petition finding
Texas kangaroo rat	90–day petition finding
Spot-tailed earless lizard	90–day petition finding
Eastern small-footed bat	90–day petition finding
Northern long-eared bat	90–day petition finding
Prairie chub	90–day petition finding

ACTIONS FUNDED IN FY 2010 BUT NOT YET COMPLETED—Continued

Species	Action
10 species of Great Basin butterfly	90–day petition finding
6 sand dune (scarab) beetles	90–day petition finding
Golden-winged warbler	90–day petition finding
Sand-verbena moth	90–day petition finding
404 Southeast species	90–day petition finding
High-Priority Listing Actions[3]	
19 Oahu candidate species[2] (16 plants, 3 damselflies) (15 with LPN = 2, 3 with LPN = 3, 1 with LPN =9)	Proposed listing
19 Maui-Nui candidate species[2] (16 plants, 3 tree snails) (14 with LPN = 2, 2 with LPN = 3, 3 with LPN = 8)	Proposed listing
Dune sagebrush lizard (formerly Sand dune lizard)[3] (LPN = 2)	Proposed listing
2 Arizona springsnails[2] *(Pyrgulopsis bernadina* (LPN = 2), *Pyrgulopsis trivialis* (LPN = 2))	Proposed listing
New Mexico springsnail[2] *(Pyrgulopsis chupaderae* (LPN = 2)	Proposed listing
2 mussels[2] (rayed bean (LPN = 2), snuffbox No LPN)	Proposed listing
2 mussels[2] (sheepnose (LPN = 2), spectaclecase (LPN = 4),)	Proposed listing
Altamaha spinymussel[2] (LPN = 2)	Proposed listing
8 southeast mussels (southern kidneyshell (LPN = 2), round ebonyshell (LPN = 2), Alabama pearlshell (LPN = 2), southern sandshell (LPN = 5), fuzzy pigtoe (LPN = 5), Choctaw bean (LPN = 5), narrow pigtoe (LPN = 5), and tapered pigtoe (LPN = 11))	Proposed listing

[1] Funds for listing actions for these species were provided in previous FYs.
[2] Although funds for these high-priority listing actions were provided in FY 2008 or 2009, due to the complexity of these actions and competing priorities, these actions are still being developed.
[3] Partially funded with FY 2010 funds; also will be funded with FY 2011 funds.

We have endeavored to make our listing actions as efficient and timely as possible, given the requirements of the relevant law and regulations, and constraints relating to workload and personnel. We are continually considering ways to streamline processes or achieve economies of scale, such as by batching related actions together. Given our limited budget for implementing section 4 of the Act, these actions described above collectively constitute expeditious progress.

The Sprague's pipit will be added to the list of candidate species upon publication of this 12–month finding. We will continue to monitor the status of this species as new information becomes available. This review will determine if a change in status is warranted, including the need to make prompt use of emergency listing procedures.

We intend that any proposed listing action for the Sprague's pipit will be as accurate as possible. Therefore, we will continue to accept additional information and comments from all concerned governmental agencies, the scientific community, industry, or any other interested party concerning this finding.

References Cited

A complete list of references cited is available on the Internet at *http://www.regulations.gov* and upon request from the North Dakota Field Office (see **ADDRESSES**).

Author

The primary authors of this notice are the staff members of the North Dakota Field Office.

Authority

The authority for this section is section 4 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq*.).

Dated: September 2, 2010

Paul R. Schmidt

Acting Director, Fish and Wildlife Service

[FR Doc. 2010–22967 Filed 9–14– 10; 8:45 am]

BILLING CODE 4310–55–S