DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R1–ES–2020–0153; FF09E21000 FXES11110900000 212]

RIN 1018–BE76

Endangered and Threatened Wildlife and Plants; Threatened Species Status for Streaked Horned Lark With Section 4(d) Rule

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to affirm the listing of the streaked horned lark (*Eremophila alpestris strigata*), a bird species from Washington and Oregon, as a threatened species under the Endangered Species Act of 1973, as amended (Act). After a review of the best available scientific and commercial information, we again conclude that listing the species as threatened is warranted. We also propose to revise the rule issued under section 4(d) of the Act (''4(d) rule'') for this bird. If we finalize this rule as proposed, it will maintain this species as a threatened species on the List of Endangered and Threatened Wildlife and continue to extend the Act's protections to the species.

DATES: We will accept comments received or postmarked on or before June 14, 2021. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by 11:59 p.m. Eastern Time on the closing date. We must receive requests for a public hearing, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by May 28, 2021.

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

(1) *Electronically:* Go to the Federal eRulemaking Portal: *http://www.regulations.gov.* In the Search box, enter FWS–R1–ES–2020–0153, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the Search panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this document. You may submit a comment by clicking on ''Comment Now!''

(2) *By hard copy:* Submit by U.S. mail to: Public Comments Processing, Attn: FWS–R1–ES–2020–0153, U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

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

FOR FURTHER INFORMATION CONTACT: Paul Henson, State Supervisor, U.S. Fish and Wildlife Service, Oregon Fish and Wildlife Office, 2600 SE 98th Avenue, Suite 100, Portland, OR 97266; telephone 503–231–6179. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Act, if we determine that a species is an endangered or threatened species throughout all or a significant portion of its range, we are required to promptly publish a proposal in the **Federal Register** and make a determination on our proposal within 1 year. To the maximum extent prudent and determinable, we must designate critical habitat for any species that we determine to be an endangered or threatened species under the Act. Listing a species as an endangered or threatened species and designation of critical habitat can only be completed by issuing a rule.

What this document does. We propose to affirm the listing of the streaked horned lark as a threatened species, and we propose to revise the 4(d) rule for the species.

The basis for our action. Under the Act, we may determine that a species is an endangered or threatened species because of any of 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. We have determined that the streaked horned lark is threatened due to the ongoing loss and degradation of suitable habitat (Factor A), as well as land management activities and related effects, and recreation (Factor E), combined with the synergistic effects of small population size and climate change (Factor E), such that it is likely to become an endangered species within the foreseeable future.

Supporting documents and peer review. The Service prepared a species status assessment (SSA) report for the streaked horned lark (U.S. Fish and Wildlife Service 2021, entire). The SSA report represents a compilation of the best scientific and commercial data available concerning the status of the species, including the impacts of past, present, and future factors (both negative and beneficial) affecting the species. In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review of listing actions under the Act, we sought the expert opinions of five appropriate specialists regarding the SSA report; we received three responses. We also sent the SSA report to six partners, including scientists with expertise in ornithology and streaked horned lark biology and habitat, for review. We received review from three partners. The purpose of peer review is to ensure that our listing determinations and 4(d) rules are based on scientifically sound data, assumptions, and analyses.

Information Requested

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

We particularly seek comments concerning:

(1) The species' biology, range, and population trends, including:

(a) Biological or ecological requirements of the species, including habitat requirements for feeding, breeding, and sheltering;

(b) Genetics and taxonomy;

(c) Historical and current range, including distribution patterns;

(d) Historical and current population levels, and current and projected trends; and

(e) Past and ongoing conservation measures for the species, its habitat, or both.

(2) Factors that may affect the continued existence of the species, which may include habitat modification or destruction, overutilization, disease, predation, the inadequacy of existing regulatory mechanisms, or other natural or manmade factors.

(3) Biological, commercial trade, or other relevant data concerning any threats (or lack thereof) to this species

and existing regulations that may be addressing those threats.

(4) Additional information concerning the historical and current status, range, distribution, and population size of this species, including the locations of any additional populations of this species.

(5) Information on regulations that are necessary and advisable to provide for the conservation of the streaked horned lark and that the Service can consider in revising the 4(d) rule for the species. In particular, information concerning the extent to which we should include any of the Act's section 9 prohibitions in the 4(d) rule or whether any other forms of take should be excepted from the prohibitions in the 4(d) rule.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

Please note that submissions merely stating support for, or opposition to, the action under consideration without providing supporting information, although noted, will not be considered in making a determination, as section 4(b)(1)(A) of the Act directs that determinations as to whether any species is an endangered or a threatened species must be made ''solely on the basis of the best scientific and commercial data available.''

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

If you submit information via *http://www.regulations.gov,* your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on *http://www.regulations.gov.*

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on *http://www.regulations.gov.*

Because we will consider all comments and information we receive during the comment period, our final determinations may differ from this proposal. Based on the new information we receive (and any comments on that new information), we may conclude that the species is endangered instead of threatened, or we may conclude that the species does not warrant listing as either an endangered species or a threatened species. In addition, we may change the parameters of the prohibitions or the exceptions to those prohibitions in our proposed 4(d) rule if we conclude it is appropriate in light of comments and new information received. For example, we may expand the incidental take prohibitions to include prohibiting additional activities if we conclude that those additional activities are not compatible with conservation of the species. Conversely, we may establish additional exceptions to the incidental take prohibitions in the final rule if we conclude that the activities would facilitate or are compatible with the conservation and recovery of the species.

Public Hearing

Section 4(b)(5) of the Act provides for a public hearing on this proposal, if requested. Requests must be received by the date specified in **DATES**. Such requests must be sent to the address shown in **FOR FURTHER INFORMATION CONTACT**. We will schedule a public hearing on this proposal, if requested, and announce the date, time, and place of the hearing, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing. For the immediate future, we will provide these public hearings using webinars that will be announced on the Service's website, in addition to the **Federal Register**. The use of these virtual public hearings is consistent with our regulations at 50 CFR 424.16(c)(3).

Previous Federal Actions

On October 3, 2013, we published in the **Federal Register** (78 FR 61452) a final rule listing the streaked horned lark as a threatened species under the Act; that rule includes a 4(d) rule to exempt certain activities from the take prohibitions of the Act and our regulations in order to provide for the conservation of the streaked horned lark.

In addition, on October 3, 2013, we published in the **Federal Register** (78 FR 61506) a final rule designating critical habitat for the streaked horned lark in Washington and Oregon.

On February 28, 2018, the Center for Biological Diversity filed suit against the Department of the Interior and the Service on the listing and 4(d) rules for the streaked horned lark. The plaintiff challenged the adequacy of our significant portion of the range analysis, and the 4(d) rule's exception to the take prohibition for agricultural activities in the Willamette Valley. The court did not vacate the rules but remanded them to us for reconsideration. In July 2019, the Service was ordered, upon agreement of the parties, to submit a new proposed listing rule (and, as applicable, a new 4(d) rule) to the **Federal Register** by March 31, 2021. To facilitate reconsideration of new information and the proposed rule in general, the Service determined that a full, new analysis of the best available scientific information according to our now standard SSA framework (Service 2016a, entire) was appropriate. This proposed rule reflects an updated assessment of the status of the subspecies (including an updated analysis of any significant portions of the range) based on the 2021 SSA for the Streaked Horned Lark, and proposed revisions to the current 4(d) rule.

I. Proposed Listing Determination

Background

A thorough review of the taxonomy, life history, and ecology of the streaked horned lark is presented in the SSA report (U.S. Fish and Wildlife Service 2021, pp. 4–19).

The streaked horned lark, a small songbird endemic to the Pacific Northwest, is one of 42 subspecies of horned lark worldwide and one of five breeding subspecies of horned larks in Washington and Oregon (Beason 1995, p. 2). Adults are pale brown, but shades of brown vary geographically among the subspecies. The male's face has a yellow wash in most subspecies. Adults have a black bib, black whisker marks, black ''horns'' (feather tufts that can be raised or lowered), and black tail feathers with white margins (Beason 1995, p. 2). Adults feed mainly on grass and forb seeds, but feed insects to their young (Beason 1995, p. 6). At coastal sites, streaked horned larks forage in the wrack line and in intertidal habitats (Pearson and Altman 2005, p. 8), and streaked horned larks in the Willamette Valley eat seeds of introduced weedy grasses and forbs, focusing on the seed source that is most abundant (Moore 2008a, p. 9).

Streaked horned larks historically selected habitat in relatively flat, open areas maintained by flooding, fire, and sediment transport dynamics. The interruption of these historical processes due to flood control dams, fire suppression, and reduction of sediment transport by dams resulted in a steep decline in the extent of historical habitat for the lark. Currently, larks are found in open areas free from visual obstructions like grasslands, prairies, wetlands, beaches, dunes, and modified or temporarily disturbed habitats (such as agricultural or grass seed fields, airports, dredged material placement

sites, and gravel roads). Streaked horned larks need relatively flat landscapes with sparse vegetation, preferring habitats with an average of 17 percent bare ground for foraging and 31 percent of bare ground for nesting (Altman 1999, p. 18). Typically, preferred habitats contain short vegetation, contain forbs and grasses that are less than 13 inches (in) (33 centimeters (cm)) in height, and have few or no trees or shrubs (Altman 1999, p. 18; Pearson and Hopey 2005, p. 27). The large, open areas used by populations of larks are regularly disturbed via burning, mowing, herbicide application, crop rotation, dredging material placement, and/or other anthropogenic regimes.

Habitat characteristics of agricultural lands used by streaked horned larks include: (1) Bare or sparsely vegetated areas within or adjacent to grass seed fields, pastures, or fallow fields; (2) recently planted (0 to 3 years) conifer farms with extensive bare ground; and (3) wetland mudflats or ''drown outs'' (*i.e.,* washed out and poorly performing areas within grass seed or row crop fields). Currently, in the Willamette Valley, there are approximately 420,000 acres (ac) (169,968 hectares (ha)) of grass seed fields and an additional approximately 500,000 ac (202,343 ha) of other agriculture. In any year, some portion of these 920,000 ac (372,311 ha) will have suitable streaked horned lark habitat, but the geographic location of those areas may not be consistent from year to year due to variable agricultural practices (fallow fields, crop rotation, etc.), and we cannot predict the changing and dynamic locations of those areas.

Horned larks form breeding pairs in the spring (Beason 1995, p. 11), and territory size is variable. Territory size can range from 1.5 to 2.5 ac (0.61 to 1.0 ha) (Altman 1999, p. 11), and varies widely between sites and across years; for 16 pairs of larks, territories ranged in size from 4.0 to 20.6 ac (1.6 to 8.3 ha) (Wolf *et al.* 2017, p. 12). Territories overlap substantially, which is not surprising given the semi-colonial breeding behavior of the species (breeding territories are adjacent to other pairs at the same site but nests are not in extremely close proximity) (Wolf *et al.* 2017, p. 12). The nesting season (*i.e.,* clutch initiation to fledging) for streaked horned larks begins in mid-April and ends in late August, with peaks in May and early June (Pearson and Hopey 2004, p. 11; Moore 2011, p. 32; Wolf 2011, p. 5; Wolf and Anderson, 2014, p. 19). After the first nesting attempt in April, streaked horned larks will often re-nest in late June or early July (Pearson and Hopey 2004, p. 11). Nests are positioned adjacent to vegetation or other structural elements and are lined with soft vegetation (Pearson and Hopey 2005, p. 23; Moore and Kotaich 2010, p. 18). Streaked horned lark nesting success (*i.e.,* the proportion of nests that result in at least one fledged chick) is highly variable, consistent with ground-nesting passerines (Best 1978, pp. 16–20; Johnson and Temple 1990, p. 6).

The average minimum viable population (MVP) for the groups Aves and Passerines has been identified as 5,269 and 6,415 individuals respectively; this number was determined using methodology described in a meta-analysis of multiple taxa (birds, fish, mammals, reptiles and amphibians, plants, insects, and marine invertebrates) (Anderson 2015, p. 2). Though we don't know what the historical abundance was for streaked horned lark rangewide, based on the MVPs for similar species, it was most likely larger than the current abundance. The most recent rangewide population estimate for streaked horned larks is 1,170 to 1,610 individuals; this estimate is based on data compiled from multiple survey efforts, plus extrapolation to areas of potential suitable habitat not surveyed (*e.g.,* inaccessible private lands), particularly in the Willamette Valley (Altman 2011, p. 213).

The streaked horned lark currently occurs at local populations (defined here as scattered breeding sites or areas of habitat to which individuals return each year) in three regions across the range: The South Puget Lowlands in Washington, the Pacific Coast and Lower Columbia River in Washington and Oregon, and the Willamette Valley in Oregon. Based on 2013 to 2019 survey data from some regularly monitored sites across the range of the subspecies, the number, distribution, and size of streaked horned lark local populations appear to have increased. Regional population breeding pair counts and the rangewide total are summarized in Table 1 and Figure 1, below.

TABLE 1—REGIONAL SUMMARIES OF BREEDING PAIRS, WITH NUMBER OF LOCAL POPULATIONS, BASED ON SITES REGULARLY MONITORED FROM 2013 TO 2019

Regional population (with number of local populations)	2013	2014	2015	2016	2017	2018	2019
South Puget Lowlands (8)	75	97	116	124	142	121	121
Pacific Coast and Lower Columbia River (24)	81	89	77	85	77	86	97
Pacific Coast (5)	*10*	*12*	*11*	*9*	*13*	*13*	*10*
Lower Columbia River (19)	*71*	*77*	*66*	*76*	*64*	*73*	*87*
Willamette Valley (10)	42	* incomplete	109	127	92	133	165
Rangewide total	198	* 186	302	336	311	340	383

* Several of the locations were not surveyed in 2014; other sites have no data available.

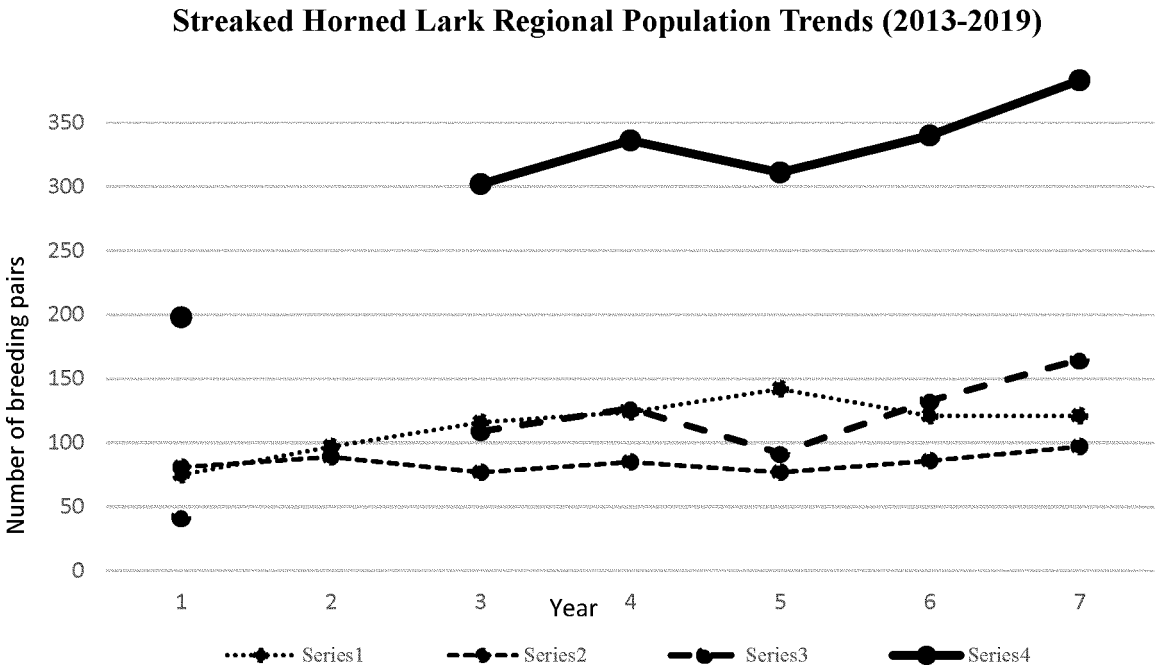

Figure 1. Regional population trends based on 2013–2019 survey data

The South Puget Lowlands region consists of eight local populations at three municipal airports and five sites at Joint Base Lewis McChord (JBLM). Since streaked horned larks were listed in 2013, this regional population has stabilized to some degree, but two of its local populations continue to experience declining trends (Keren and Pearson 2019, p. 4).

The Pacific Coast and Lower Columbia River region currently consists of twenty-four local populations, including the new population recently detected at Clatsop Spit in Oregon. The region currently appears stable (Keren and Pearson 2019, p. 3), although local population surveys are inconsistent and do not occur at each site every year. Two of the sites on the coast of Washington (Oyhut Spit and Johns River) have no positive records since the 2013 listing and appear to be extirpated. Although the current abundance of local populations on the Pacific Coast is low compared to other areas, it has been low for many years, the size of those coastal sites is relatively small compared to other local populations (and therefore naturally limits the number of breeding pairs), and there is no apparent declining trend in this area based on survey data between 2013 and 2019.

The Willamette Valley regional population was previously estimated at 900 to 1,300 individuals based on data compiled and extrapolated from multiple survey efforts between 2008 and 2010 (Altman 2011, p. 213), including estimates from the many known occupied but inaccessible sites on private lands in the region. Surveys from the ten regularly monitored accessible occupied sites in the Willamette Valley counted 165 breeding pairs in 2019. These monitored sites include four at municipal airports, three at National Wildlife Refuges, two at natural areas, and one on private land. One historical site for a local population in this region (Salem Municipal Airport) has no positive records since 2013 and appears to be extirpated. The Willamette Valley regional population appears to be well distributed and increasing, but the limited surveys of accessible sites may not accurately reflect the trend in the whole region. The subspecies appears to be more abundant in the southern end of the valley where there is more suitable habitat.

While the number of local populations in the South Puget Lowlands has not increased, the local populations at JBLM have increased in size. Furthermore, two additional sites in the Lower Columbia River area, and at least two additional sites in the Willamette Valley, have increased the number and distribution of local populations throughout the range since 2013. Despite recent observations of individual larks at Clatsop Spit (*i.e.,* not breeding pairs), the number, distribution, and size of local breeding populations along the Pacific Coast has remained relatively constant.

Across the range of the subspecies, the number of breeding pairs at some regularly monitored sites increased from 198 in 2013, to 383 in 2019. However, because a rangewide population estimate has not been reanalyzed since 2011, we are unable to state conclusively that the rangewide population has increased. The North American Breeding Bird Survey (BBS) analyzes regional data to provide a trend for rangewide breeding populations. In contrast to the data from site-specific surveys for the streaked horned lark from 2013–2019, the most recent BBS analysis for the region encompassing streaked horned larks indicates a 6.52 percent decline for the subspecies between 2005 and 2015 (95 percent confidence interval: –12.66 to –2.26 percent) (Sauer *et al.* 2017, p. 3). It is important to keep in mind however, that when a species is listed and recovery actions begin, it may still be many years before the abundance recovers to the point where the species demonstrates a rangewide increasing population trend. The streaked horned lark was listed in 2013, only two years before the last data set that was included in the most recent BBS analysis.

Regulatory and Analytical Framework

Regulatory Framework

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species is an ''endangered species'' or a ''threatened species.'' The Act defines an ''endangered species'' as a species that

is in danger of extinction throughout all or a significant portion of its range, and a ''threatened species'' as a species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether any species is an ''endangered species'' or a ''threatened species'' because of any of the following 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.

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species' continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects.

We use the term ''threat'' to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term ''threat'' includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those that affect individuals through alteration of their habitat or required resources (stressors). The term ''threat'' may encompass—either together or separately—the source of the action or condition or the action or condition itself.

However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an ''endangered species'' or a ''threatened species.'' In determining whether a species meets either definition, we must evaluate all identified threats by considering the expected response by the species, and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species, such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the definition of an ''endangered species'' or a ''threatened species'' only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

The Act does not define the term ''foreseeable future,'' which appears in the statutory definition of ''threatened species.'' Our implementing regulations at 50 CFR 424.11(d) set forth a framework for evaluating the foreseeable future on a case-by-case basis. The term ''foreseeable future'' extends only so far into the future as the Services can reasonably determine that both the future threats and the species' responses to those threats are likely. In other words, the foreseeable future is the period of time in which we can make reliable predictions. ''Reliable'' does not mean ''certain''; it means sufficient to provide a reasonable degree of confidence in the prediction. Thus, a prediction is reliable if it is reasonable to depend on it when making decisions.

It is not always possible or necessary to define foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species' likely responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species' biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

Analytical Framework

The SSA report documents the results of our comprehensive biological review of the best scientific and commercial data regarding the status of the species, including an assessment of the potential threats to the species. The SSA report does not represent a decision by the Service on whether the species should be proposed for listing as an endangered or threatened species under the Act. It does, however, provide the scientific basis that informs our regulatory decisions, which involve the further application of standards within the Act and its implementing regulations and policies. The following is a summary of the key results and conclusions from the SSA report; the full SSA report can be found at Docket No. FWS–R1–ES–2020–0153 on *http://www.regulations.gov.*

To assess streaked horned lark viability, we used the three conservation biology principles of resiliency, redundancy, and representation (Shaffer and Stein 2000, pp. 306–310). Briefly, resiliency supports the ability of the species to withstand environmental and demographic stochasticity (for example, wet or dry, warm or cold years), redundancy supports the ability of the species to withstand catastrophic events (for example, droughts, large pollution events), and representation supports the ability of the species to adapt over time to long-term changes in the environment (for example, climate changes). In general, the more resilient and redundant a species is and the more representation it has, the more likely it is to sustain populations over time, even under changing environmental conditions. Using these principles, we identified the species' ecological requirements for survival and reproduction at the individual, population, and species levels, and described the beneficial and risk factors influencing the species' viability.

The SSA process can be categorized into three sequential stages. During the first stage, we evaluated the individual species' life-history needs. The next stage involved an assessment of the historical and current condition of the species' demographics and habitat characteristics, including an explanation of how the species arrived at its current condition. The final stage of the SSA involved making predictions about the species' responses to positive and negative environmental and anthropogenic influences in the future. Throughout all of these stages, we used the best available information to characterize viability as the ability of a species to sustain populations in the wild over time. We use this information to inform our regulatory decision.

Summary of Biological Status and Threats

In this discussion, we review the biological condition of the species and its resources, and the threats that influence the species' current and future condition, in order to assess the species' overall viability and the risks to that viability.

Factors Influencing the Species

In our October 3, 2013, listing rule (78 FR 61452), we found that the streaked horned lark was a threatened species due to loss and degradation of habitat from development, fire suppression, and invasive (native and nonnative) plants; dredge spoil deposition timing and placement on Columbia River islands; incompatibly timed burning and mowing regimes; activities associated with military training; conversion of large grass seed production fields to

incompatible agricultural commodities; predation; small population effects; activities associated with airports; and recreation.

In our SSA, we carefully analyzed these previously identified threats, as well as additional potential threats and positive conservation measures, to determine if they operate at a scope and magnitude as to influence the condition, or resiliency, of populations rather than only some individuals (U.S. Fish and Wildlife Service 2021, pp. 19–38). Based on our assessment, disease and pesticides do not rise to the level of affecting the condition of local or regional populations. Although the 2013 listing rule stated that predation was likely to be a significant and ongoing threat to the subspecies (particularly in the South Puget Lowlands region), our SSA did not find evidence of effects to the subspecies from predation beyond effects to individuals in any local population (U.S. Fish and Wildlife Service 2021, p. 20). Although predation does occur, we did not find that it occurred at a level beyond regular life-history dynamics. We acknowledge, however, that predation combined with the effects of small population size may reduce the resiliency of some local populations, as noted below under ''Synergistic Effects.'' In 2013, a predator control program under the Wildlife Services Predator Damage Management Program of the Animal and Plant Health Inspection Service, U.S. Department of Agriculture was initiated at Leadbetter Point and Midway Beach on the Washington coast (U.S. Fish and Wildlife Service 2011). Data shows that western snowy plovers have shown improved nesting success since the program was implemented; however, monitoring data for streaked horned larks are inconclusive, and we cannot reliably determine if predator control has improved nesting success for larks at these sites.

The primary driver of the status of streaked horned lark has been the scarcity of large, open spaces with very early seral stage vegetation. Historically, habitat was created and maintained by natural ecological processes of flooding, fire, and coastal sediment transport dynamics, as well as prairies maintained by Native American burning. The loss of regular disturbance regimes that created these open spaces impacted the abundance and distribution of historical populations, but the impact occurred decades ago and is not ongoing. Though this loss of historical disturbance led to displacement of lark into less suitable alternative habitat and subsequent population declines, it is not considered a significant influence on the condition of current populations. Furthermore, our current and future condition analyses take into consideration the quality of habitat, so the condition ranking of any populations that were displaced into lower quality habitat due to loss of historical disturbance is reflective of that displacement.

The primary factors currently influencing the condition of streaked horned lark populations are the ongoing loss and conversion of suitable habitat, land management activities and related effects, and recreation. Since we listed the streaked horned lark as threatened under the Act in 2013, multiple entities have implemented a series of regulatory and voluntary conservation measures (section 7 consultations due to the listing of the subspecies under the Act) to offset negative impacts to larks and lark habitat, reducing the overall impact of stressors influencing local populations. We discuss these primary influence factors and associated conservation actions below.

Ongoing Loss and Conversion of Suitable Habitat

Following Euro-American settlement of the Pacific Northwest in the mid-19th century, fire was actively suppressed on grasslands in the Willamette Valley, allowing encroachment by woody vegetation into prairie habitat and oak woodlands (Franklin and Dyrness 1973, p. 122; Boyd 1986, entire; Kruckeberg 1991, p. 286; Agee 1993, p. 360; Altman *et al.* 2001, p. 262). Native and nonnative species that have encroached on these habitats throughout the lark's range include native Douglas fir (*Pseudotsuga menziesii*), nonnative Scotch broom (*Cytisus scoparius*), and nonnative grasses such as tall oatgrass (*Arrhenatherum elatius*) and false brome (*Brachypodium sylvaticum*) (Dunn and Ewing 1997, p. v; Tveten and Fonda 1999, p. 146). This expansion of woody vegetation and nonnative plant species, including noxious weeds, has reduced the quantity and quality and overall suitability of prairie habitats for larks (Tveten and Fonda 1999, p. 155; Pearson and Hopey 2005, pp. 2, 27). On JBLM alone, over 16,000 ac (6,600 ha) of prairie has been converted to Douglas fir forest since the mid-19th century (Foster and Shaff 2003, p. 284). Trees and/or other woody vegetation infiltrate open areas with formerly low vegetation and long sight lines preferred by streaked horned larks.

The introduction of Eurasian beachgrass (*Ammophila arenaria*) and American beachgrass (*Ammophila breviligulata*) in the late 1800s, currently found in high and increasing densities in most of coastal Washington and Oregon, has dramatically altered the structure of dunes on the coast (Wiedemann and Pickart 1996, p. 289). Beachgrass creates areas of dense vegetation unsuitable for larks (MacLaren 2000, p. 5). The spread of beachgrass has reduced the available nesting habitat for streaked horned larks in Washington at Damon Point and at Grays Harbor and Leadbetter Point on Willapa National Wildlife Refuge (NWR) (Washington Department of Fish and Wildlife 1995, p. 19; Stinson 2005, p. 65; U.S. Fish and Wildlife Service 2011, p. 4–2). On the Oregon coast, the low abundance of streaked horned lark is attributed to the invasion of exotic beachgrasses and resultant dune stabilization (Gilligan *et al.* 1994, p. 205). Without management (mechanical and chemical) to maintain the open landscape at sites like these, invasive beachgrasses will continue to influence current and future local populations of streaked horned larks and reduce suitability of these habitats, particularly in the Pacific Coast and Lower Columbia River region.

Habitat restoration work on Leadbetter Point by the Service's Willapa NWR has successfully reduced the cover of encroaching beachgrasses into streaked horned lark habitat. In 2007, the area of open habitat measured 84 ac (34 ha). However, after mechanical and chemical treatment to clear beachgrass (mostly American beachgrass) and spreading oyster shells across 45 ac (18 ha), there is now 121 ac (50 ha) of sparsely vegetated habitat available, increasing the extent of open habitat (Pearson *et al.* 2009b, p. 23). The main target of the Leadbetter Point restoration project was the federally listed western snowy plover (*Charadrius alexandrinus nivosus*), but the restoration actions also benefited streaked horned larks. Before the restoration project, this area had just 2 streaked horned lark territories (Stinson 2005, p. 63); after the project, an estimated 7 to 10 territories were located in and adjacent to the restoration area (Pearson *in litt.* 2012b).

Human activity has converted native prairie and grassland habitats to residential and commercial development, reducing habitat availability for streaked horned larks throughout their range. About 96 percent of the Willamette Valley is privately owned, and it is home to almost three-fourths of Oregon's human population, which is anticipated to nearly double in the next 50 years (Oregon Department of Fish and Wildlife 2016, p. 17). The Willamette Valley provides about half of the State's

agricultural sales and is the location of 16 of the top 17 private-sector employers (manufacturing, technology, forestry, agriculture, and other services). In the South Puget Lowlands, prairie habitat continues to be lost, particularly via the removal of native vegetation and the excavation and conversion to non-habitat surfaces in the process of residential development (*i.e.,* buildings, pavement, residential development, and other infrastructure) (Stinson 2005, p. 70; Watts *et al.* 2007, p. 736). The region also contains glacial outwash soils and deep layers of gravels underlying the prairies that are valuable for use in construction and road building.

Industrial development has also reduced habitat available to breeding and wintering streaked horned larks. Rivergate Industrial Park, owned by the Port of Portland, is a large industrial site in north Portland near the Columbia River that was developed on a dredge disposal site. Rivergate has long been an important breeding site for streaked horned larks and a wintering site for large flocks of mixed lark subspecies. In 1990, the field used by streaked horned larks at Rivergate measured more than 650 ac (260 ha) of open sandy habitat (Dillon *in litt.* 2012). In the years since, the Port of Portland has constructed numerous industrial buildings on the site, subsequently reducing habitat availability for larks and likely displacing all breeding and wintering larks from the area (Port of Portland 2019, entire).

As part of the section 10(a)(1)(B) permit associated with the development of a habitat conservation plan (HCP) under the Act, the Port of Portland mitigated for the loss of streaked horned lark habitat by securing a long-term easement on a 32-ac (13-ha) parcel at Sandy Island. Sandy Island is an occupied breeding site on the Columbia River about 30 miles (mi) (50 kilometers (km)) north of the Rivergate industrial site and is designated as critical habitat for the streaked horned lark (Port of Portland 2017, p. 4). The Port's 30-year commitment to manage the site and protect breeding streaked horned larks helps to offset impacts to the regional population from the loss of available habitat at the Rivergate site.

Roughly half of all the agricultural land in the Willamette Valley, approximately 360,000 ac (145,000 ha), is devoted to grass seed production (Oregon Seed Council 2018, p. 1). Grasslands, both native prairies and grass seed fields, are important habitats for streaked horned larks in the Willamette Valley, as they are used as both breeding and wintering habitat (Altman 1999, p. 18; Moore and Kotaich 2010, p. 11; Myers and Kreager 2010, p. 9). Demand for grass seed and the overall acreage of grass seed harvested in Oregon has declined since 2005 (Oregon State University 2005 and 2019, entire). In 2019, approximately 364,355 ac (147,450 ha) were planted for forage and turf grass seed crops in the Willamette Valley compared to approximately 484,080 ac (195,900 ha) in 2005 (Oregon State University 2005 and 2019, entire). The reduction in grass seed production has resulted in growers switching to other commodities, such as wheat, stock for nurseries and greenhouses, grapes, blueberries, and hazelnuts (U.S. Department of Agriculture National Agricultural Statistics Service 2009, p. 3; Oregon Department of Agriculture 2011, p. 1; U.S. Department of Agriculture National Agricultural Statistics Service 2017, pp. 34, 55, 101). These other crop types do not have the low-statured vegetation and bare ground preferred by the streaked horned lark.

The continued decline of the grass seed industry in the Willamette Valley due to the variable economics of agricultural markets will likely result in a continued conversion from grass seed fields to other agricultural types, and fewer acres of suitable habitat for streaked horned larks. Across the range, the conversion of streaked horned lark habitat into agricultural, industrial, residential, or urban development will continue to influence current and future streaked horned lark local or regional populations to some degrees throughout the range of the species, though the Pacific Coast is less affected than other areas.

Land Management Activities and Related Effects

Streaked horned larks evolved in a landscape of ephemeral habitat with regular historical disturbance regimes that maintained the large, open spaces with very early seral stage vegetation relied upon by the subspecies. Human activity led to the stabilization of these historical disturbance regimes, as well as the unintentional creation of ''replacement'' habitat for streaked horned larks that mimics their preferred large, open spaces. Replacement habitat occurs in a variety of settings across the range of the subspecies, including agricultural fields, at airports, and on dredge spoil islands. Open habitat is maintained in these areas by way of frequent human disturbance, including burning, mowing, cropping, chemical treatments (herbicide and pesticide application), or placement of dredged materials (Altman 1999, p. 19). Without regular large-scale, human-caused disturbance, the quantity of suitable habitat available to larks would decrease rapidly. These land management activities are key to providing and maintaining habitat for the streaked horned lark; without replacement habitat, the status of the subspecies would likely be much worse.

However, when these same activities are conducted during the most active breeding season (mid-April to mid-June) for streaked horned larks, they have the potential to result in destruction of nests, crushing of eggs or nestlings, or flushing of fledglings or adults (Pearson and Hopey 2005, p. 17; Stinson 2005, p. 72). During the nesting seasons from 2002 to 2004, monitoring at Gray Army Airfield, McChord Airfield, and Olympia Airport in the South Puget Lowlands region documented nest failure at 8 percent of nests due to mowing over nests, forcing young to fledge early (Pearson and Hopey 2005, p. 18). Additionally, though dredge deposits can mimic sandy beach habitat typically used by larks, they have also been documented to destroy breeding sites and active nests (Pearson in litt. 2012a; Pearson et al. 2008a, p. 21; MacLaren 2000, p. 3; Pearson and Altman 2005, p. 10).

The list of threats to the subspecies in the 2013 listing rule (78 FR 61452) included dredge spoil deposition timing and placement on Columbia River islands, incompatibly timed burning and mowing regimes, activities associated with military training, and activities associated with airports. Despite these threats noted at the time of listing, the Service determined that timing restrictions on these activities were not appropriate, stating in the rule: ''Our purpose in promulgating a special rule to exempt take associated with activities that inadvertently create habitat for the streaked horned lark is to allow landowners to continue those activities without additional regulation. We believe that imposing a timing restriction would likely reduce the utility of the special rule for land managers and could have the unintended side effect of causing landowners to discontinue their habitat creation activities'' (78 FR 61464). No timing restrictions were included in the 2013 4(d) rule and these land management activities continued across the range since that time. Since 2013, survey data from some regularly monitored sites across the range of the subspecies show an increase from 198 breeding pairs in 2013, to 383 breeding pairs in 2019, despite a lack of timing restrictions on land management activities. While the loss of individuals is never welcome, the continuation of

land management activities that create replacement habitat is very important to the conservation of the subspecies, and the benefits appear to outweigh the cost of any loss of individuals.

In the Willamette Valley, some habitats in agricultural areas are consistently maintained and therefore available throughout the year (*e.g.,* on the margins of gravel roads), while other patches of suitable habitat shift as areas such as large fields are mowed, harvested, sprayed, or burned. In 2017, the Willamette Valley NWR entered into a 4-year programmatic consultation with the Service for its farming and pesticide use program (U.S. Fish and Wildlife Service 2016b, entire). This programmatic consultation documents the Refuge program's commitment to adapting its farming activities to improve the status of the streaked horned lark on the William L. Finley, Ankeny, and Baskett Slough units of the complex. Conservation measures include ensuring that farming activities minimize disturbance to larks, and that pesticides used in agricultural fields have a low risk of adverse effects to larks and their food sources.

Airports implement hazardous wildlife management programs that include vegetation management around roads and runways, to discourage the presence of wildlife near the runways and thereby promote human safety for flights. Streaked horned lark are very attracted to the wide-open spaces created by vegetation management, and several airports in the range are now sites for local populations of the subspecies. In the South Puget Lowlands, the streaked horned lark might have been extirpated if not for mowing at airports to maintain large areas of short grass (Stinson 2005, p. 70). Five of the eight streaked horned lark nesting sites in the South Puget Lowlands are located on or adjacent to airports and military airfields (Rogers 2000, p. 37; Pearson and Hopey 2005, p. 15). At least five breeding sites are found at airports in the Willamette Valley, including the largest known local population at Corvallis Municipal Airport (Moore 2008b, pp. 14–17). The Port of Olympia's Updated Master Plan includes recommendations to minimize impacts to larks at the airport by avoiding mowing during the breeding season; however, mowing still occurs during the breeding season (Port of Olympia/Olympia Regional Airport 2013, pp. 10–11) and the local population at the airport has fluctuated (both increased and decreased) in surveys from 2013 to 2019 (Wolf et al. 2020, p. 16). The overall count in 2019 of 27 breeding pairs was slightly lower that the count in 2013 (30), however, in 2019 there were six more breeding pairs than were counted in 2018.

In 2017, the JBLM finalized a programmatic consultation with the Service that covered multiple activities affecting streaked horned lark including mowing (U.S. Fish and Wildlife Service 2017) (although mowing is allowed during the breeding season under emergency circumstances (Wolf *et al.* 2017, p. 34)). The consultation has resulted in a significant reduction in adverse effects to larks from mowing at military airfields. The breeding population of larks on JBLM increased from fewer than 100 pairs when the streaked horned lark was listed in 2013 (Wolf and Anderson 2014, p. 12), to over 120 pairs in 2019 (Wolf et al. 2020, p. 6). However, there are no conservation measures at several municipal airports in the Puget Lowlands region and none of the airports in the Willamette Valley region to reduce effects to streaked horned larks from operations and maintenance activities, including mowing.

Individual lark in these local populations near runways are at increased risk of aircraft strikes and collisions. Horned lark strikes are frequently reported at military and civilian airports throughout the country, but because of the bird's small size, few strikes result in significant damage to aircraft (Dolbeer *et al.* 2011, p. 48; Air Force Safety Center 2012, p. 2). Juvenile males seem to be struck most often, perhaps because they are trying to establish new territories in unoccupied but risky areas on runway margins (Wolf *et al.* 2017, p. 31). With respect to streaked horned larks in particular, in the 5-year period from 2013 to 2017, McChord Airfield had seven confirmed strikes, and Gray Army Airfield recorded one confirmed streaked horned lark strike (Wolf *in litt.* 2018). Since January 2017, 16 adults have been killed by strikes on JBLM, including 10 adults and 2 juveniles killed by strikes at McChord Airfield in 2020 (Wolf *in litt.* 2020).

The increased number of strikes in 2020 were a direct result of construction activities that redirected aircraft traffic to the northern half of the runway where lark density is highest and lark abundance was relatively high; this led to a higher than normal mortality rate from aircraft strikes. Aside from the 12 strikes in 2020, JBLM recorded a total of 12 strikes in the seven years between 2013 and 2019, for a rate of 1.7 strikes per year. While aircraft strikes do occur in several local populations at airports throughout the range of the species (particularly in the South Puget Lowlands), the rate appears relatively low and the vegetation management conducted by these airports also maintains replacement habitat that supports breeding pairs (Pearson *et al.* 2008a, p. 13; Camfield *et al.* 2011, p. 10; FAA 2020, entire).

The streaked horned lark uses islands in the Lower Columbia River for both breeding and wintering habitat. The river channel is regularly dredged by the U.S. Army Corps of Engineers (Corps), and dredge deposits can both benefit and harm streaked horned larks depending on the location and timing of deposition. In 2014, the Corps entered into a programmatic consultation with the Service for the Corps' navigation channel dredging and dredge materials placement program in the Lower Columbia River (U.S. Fish and Wildlife Service 2014, entire). In this consultation, the Corps committed to planning for the placement of dredge material to minimize adverse effects to the lark on the Corps' network of placement sites and to maintain enough habitat in suitable condition to maintain the current regional population of breeding larks and allow for additional population growth. The 5-year program has been successful; from 2014 to 2019, numbers in the Lower Columbia River increased from an estimate of 77 pairs to 87 pairs, with the increases occurring at dredge deposition sites (Center for Natural Lands Management 2019, pp. 3–4). The original 5-year consultation was extended through 2022. The Corps is currently working on a 20-year dredge material management plan, which will build on the success of the previous consultation.

Military training activities at the 13th Division Prairie at JBLM, including bombardment with explosive ordnance and hot downdraft from aircraft, as well as civilian events, have caused nest failure and abandonment at JBLM's Gray Army Airfield and McChord Airfield (Stinson 2005, pp. 71–72). JBLM is also used for helicopter operations (paratrooper practices, touch-and-go landings, and load drop and retrievals) and troop training activities. Artillery training, off-road use of vehicles, and troop maneuvers at the 13th and 91st Division Prairies have been conducted in areas used by streaked horned larks during the nesting season, contributing to nest failure and low nest success. In addition to military training activities, McChord Airfield hosts an international military training event known as the Air Mobility Rodeo, which is held in odd-numbered years. In even-numbered years, McChord Airfield hosts a public air show known as the Air Expo; this event incorporates simulated bombing

and fire-bombing, including explosives and pyrotechnics launched from an area adjacent to one of JBLM's most densely populated streaked horned lark nesting sites. The Expo and Rodeo can affect the streaked horned lark through disturbance from aircraft, temporary infrastructure, and spectator-related nest abandonment, nest failure, and adverse effects to fledglings (Pearson *et al.* 2005, p. 18; Stinson 2005, p. 27). The 2017 programmatic consultation JBLM entered into with the Service covers military training and these other regular activities (U.S. Fish and Wildlife Service 2017, entire). The consultation has significantly reduced adverse effects to larks from military activities (including training at military airfields), and resulted in an increase in the breeding population of larks on JBLM from fewer than 100 pairs in 2013 (Wolf and Anderson 2014, p. 12), to over 120 pairs in 2019 (Wolf et al. 2020, p. 6).

Recreation

Recreation at coastal sites can cause the degradation of streaked horned lark habitat, as well as disturbance to adults and juveniles, and direct mortality to eggs, nestlings, and fledglings. Activities such as the annual spring razor clam digs, dog walking, beachcombing, off-road vehicle use, camping, fishing, and horseback riding in coastal habitats may directly or indirectly increase predation (primarily by corvids), resulting in nest abandonment and nest failure for streaked horned larks (Pearson and Hopey 2005, pp. 19, 26, 29). Streaked horned larks nest in the same areas as western snowy plovers along the Washington coast, and it is highly likely that recreation has caused nest failures for larks at sites that have documented nest failure for plovers; both species are ground nesters and, therefore, similarly at risk of effects of recreation. During western snowy plover surveys conducted between 2006 and 2010 at coastal sites in Washington, human-caused nest failures were reported in 4 of the 5 years (Pearson *et al.* 2007, p. 16; Pearson *et al.* 2008b, p. 17; Pearson *et al.* 2009a, p. 18; Pearson *et al.* 2010, p. 16), and one of 16 monitored nests at Midway Beach on the Washington coast was crushed by a horse in 2004 (Pearson and Hopey 2005, pp. 18–19).

In 2002, JBLM began restricting recreational activity at the 13th Division Prairie to protect lark nesting sites; JBLM prohibited model airplane flying, dog walking, and vehicle traffic in the area used by streaked horned larks (Pearson and Hopey 2005, p. 29). JBLM continues to restrict recreational activities during the lark breeding season at the 13th Division Prairie, although enforcement, especially on weekends, is intermittent (Wolf *et al.* 2016, p. 43). In addition, the 2017 programmatic consultation JBLM entered into with the Service (U.S. Fish and Wildlife Service 2017) included recreation. The programmatic consultation has resulted in a marked increase in the breeding population of larks on JBLM from fewer than 100 pairs in 2013 (Wolf and Anderson 2014, p. 12), to over 120 pairs in 2019 (Wolf et al. 2020, p. 6).

Summary of Threats

Table 2, below, summarizes the scope and magnitude of factors influencing the viability of streaked horned lark.

Table 2. Summary of Factors Influencing Regional Populations

Factors Influencing Populations		Regional Populations		
		South Puget Lowlands	Pacific Coast and Lower Columbia River	Willamette Valley
Habitat Fragmentation, Degradation, and Loss	Vegetation succession	XX	XX	XXX
	Encroachment of woody vegetation or grasses, invasive species	X	XXX	X
	Land use changes or conversion	X	X	XXX
	Crop conversion	--	--	XXX
	Loss of natural disturbance processes	XX	XX	XX
Land Management Activities and Related Effects	Vegetation management activities	XX	--	XX
	Military training and associated activities	X	--	--
	Dredged material placement	--	X	--
Recreation		--	XX	--
Aircraft Strikes		XX	--	X

Note: XXX indicates relatively frequent influence to the regional population; XX indicates moderate influence on the regional population; X indicates occasional influence on the regional population; no entry (--) indicates no influence on the regional population.

Synergistic Effects

Climate Change—The effects of climate change have already been observed in the Pacific Northwest. Temperatures have risen 1.5 to 2 degrees Fahrenheit (°F) (0.83 to 1.1 degrees Celsius (°C)) over the past century, and the past three decades have been warmer than any other historical period (Frankson *et al.* 2017a, p. 1; Frankson *et al.* 2017b, p. 1). Climate change is widely expected to affect wildlife and their habitats in the Pacific Northwest by increasing summer temperatures, reducing soil moisture, increasing wildfires, reducing mountain snowpack, and causing more extreme weather events (Bachelet *et al.* 2011, p. 414). Climate change may increase the frequency and severity of stochastic weather events, which may have severe negative effects on small local populations throughout the range of the streaked horned lark. During the breeding season, small local populations of larks are distributed across the range; in the winter, however, streaked horned larks congregate mainly in the Willamette Valley and on islands in the Lower Columbia River. Such concentration exposes the wintering populations to potentially disastrous stochastic events such as ice storms or flooding, which could kill individuals, destroy limited habitat and food availability, or skew sex ratios. Severe winter weather could potentially impact one or more regional populations when birds congregate as larger flocks (Pearson and Altman 2005, p. 13).

Despite the climate projections for the region, the effects of climate change specific to prairie ecosystems are not anticipated to decrease the resiliency of regional populations in the South Puget Lowlands, Lower Columbia River, and Willamette Valley regions. The grasslands and prairies of Washington and Oregon span a wide geographic and climatic range, encompassing a rich variety of soil types, vegetation cover, elevations, and weather patterns. This heterogeneity will likely provide substantial buffering from the effects of changing weather and climate (Bachelet *et al.* 2011, p. 412). It is possible that increased summer droughts may affect less drought-tolerant trees and other forest species adjacent to prairies, possibly resulting in prairie expansion that could benefit the streaked horned lark (Bachelet *et al.* 2011, p. 417). Prairie and grassland ecosystems are well adapted to warm and dry conditions—periodic soil drought and future increases in temperature and drought for the region ''are unlikely to disadvantage (and may benefit) these systems'' (Washington Department of Fish and Wildlife 2015, p. 5–31).

The outlook for streaked horned larks along the Pacific Coast is less encouraging due to the effects of climate change. Sea level rise, increased coastal erosion, and more severe weather events will cause significant effects to lark habitats on the coast. Projected sea level rise could increase erosion or landward shift of dunes; similarly, increased severe weather events with greater wave and wind action from storms could magnify disturbance of dune habitats (Washington Department of Fish and Wildlife 2015, p. 5–31) and imperil nesting larks. Given these stressors, we expect that climate change may limit the resiliency of some local populations on

the coast by amplifying the negative effects from habitat loss or the spread of invasive species where not managed. A conservation measure that may help reduce effects from climate change in one area of the coast in the range of the streaked horned lark is the Shoalwater Bay Shoreline Erosion Control Project (U.S. Fish and Wildlife Service 2018), which is a long-term commitment by the Corps and the Shoalwater Bay Tribe to protect the reservation from coastal erosion. It has created and is maintaining habitat for both western snowy plovers and streaked horned larks and provides secure nesting area on the coast for both species.

Small Population Size—Most species' populations fluctuate naturally, responding to various factors such as weather events, disease, and predation. These factors have a relatively minor impact on a species with large, stable local populations and a wide and continuous distribution. However, populations that are small, isolated by habitat loss or fragmentation, or impacted by other factors are more vulnerable to extirpation by natural, randomly occurring events (such as predation or stochastic weather events), and to genetic effects that plague small populations, collectively known as small population effects (Purvis *et al.* 2000, p. 3). These effects can include genetic drift, founder effects (over time, an increasing percentage of the population inheriting a narrow range of traits), and genetic bottlenecks leading to increasingly lower genetic diversity, with consequent negative effects on adaptive capacity and reproductive success (Keller and Waller 2002, p. 235).

Various effects of small population size, including low reproductive success, loss of genetic diversity, and male skewed sex-ratio, have been noted in the range of the streaked horned lark, particularly at some local populations in the South Puget Lowlands region and the Lower Columbia River (Anderson 2010, p. 15; Camfield et al. 2010, p. 277; Drovetski *et al.* 2005, p. 881; Pearson 2019, Figures 1 and 2; Drovetski *et al.* 2005, p. 881; Wolf *et al.* 2017, p. 27). Any local population of streaked horned larks with very low abundance that does not interbreed with other local populations will be at more risk in the future due to small population effects.

Current Condition

To maintain adequate resiliency, populations of streaked horned larks need large open spaces with suitable habitat structure—specifically, low-stature vegetation and scattered patches of bare ground—and an appropriate disturbance regime sufficient to maintain habitat and support increased numbers of breeding birds. The size of populations with high resiliency varies among regions, depending on the extent and quality of available habitat. Needs of the streaked horned lark in relation to degree of estimated population resiliency are summarized below in Table 3; to evaluate current condition, we assigned each condition category a number as shown.

Table 3. Matrix for Evaluating Current Condition of the Streaked Horned Lark

Demographic and Habitat Parameters		**High Condition** ⟷ **Low Condition**			
Abundance	*South Puget Lowlands*	Regular surveys detect ≥20 breeding pairs, (3)	Regular surveys detect 10–20 breeding pairs (2)	Regular surveys detect ≤10 breeding pairs (1)	Extirpated: larks no longer occupy site or region (0)
	Pacific Coast and Lower Columbia River	Regular surveys detect ≥15 breeding pairs on coast, (3)	Regular surveys detect 7–15 breeding pairs on coast, (2)	Regular surveys detect ≤7 breeding pairs on coast, (1)	
		Regular surveys detect ≥20 breeding pairs on river, (3)	Regular surveys detect 10–20 breeding pairs on river, (2)	Regular surveys detect ≤10 breeding pairs on river, (1)	
	Willamette Valley	Regular surveys detect ≥25 breeding pairs, (3)	Regular surveys detect 15–25 breeding pairs (2)	Regular surveys detect ≤15 breeding pairs (1)	
Population Trend		Increasing population trend (2)	Stable populations (1)	Declining or insufficient data to assess trends (0)	
Connectivity		Movement between local populations/regions (1)		No movement between local populations/regions (0)	
Habitat		Large, open areas with low-stature grasses, 17 percent bare ground (3)	Open areas with low-stature grasses, some shrubs and trees (2)	Small patches of suitable grasses surrounded by dense vegetation and trees (1)	Extirpated: habitat to support larks no longer exists at a site (0)
Beneficial Disturbance Regime		Regular disturbance occurs to maintain habitat for nesting, no adverse effects during breeding season (3)	Semi-regular disturbance, habitat is available but not ideal for nesting, some adverse effects during breeding season (2)	Infrequent disturbance, habitat may be temporarily unavailable; high adverse effects during breeding season (1)	Extirpated: disturbance does not occur to maintain habitat for larks; high adverse effects during breeding season (0)

Parameters that are in high condition support adequate population resiliency, whereas parameters that are in low condition reduce resiliency and increase the risk from stochastic events. Each of the five parameters were given equal weight, and the resulting scores were averaged to come up with an overall condition score for each local population unit as follows: High (≥1.7), Moderate (1.6 to 1.1), Low (1.0 to 0.2), and Extirpated (≤0.1). The overall condition score thresholds were based on the difference between the highest and lowest possible actual scores (2.4 and 0.2, respectively) for extant populations. If survey data showed a site had no detections of streaked horned larks, then the entire site is categorized as extirpated, regardless of the condition category assigned to the habitat or disturbance factors (*e.g.,* Oyhut Spit and Johns River Island in the Pacific Coast region).

The resulting current condition rankings of extant local populations varied between high to low condition. Some local populations ranked high (those that scored 1.7 or greater) as a result of abundant populations and high-quality habitat; other populations ranked lower (those that scored 1.0 or less) in part because of a combination of low abundance, declining population trends between 2013 and 2019, poor quality habitat, and effects of land management activities.

While the overall number of occupied sites represent a reduction from its historical range, of the 42 extant local populations across the three representational regions, there are eight in high condition, 15 in moderate condition, and 19 in low condition. Three sites that were occupied in years prior to the 2013 listing are currently considered extirpated. In general, the local populations with low condition have low abundance that has declined since 2013, and occur in locations that have less habitat availability and therefore limited capacity to support high numbers of birds. In addition, certain land management activities at these locations, such as construction and development or sand-borrow activities on the Columbia River, would not support long-term resiliency even if population abundance stabilized and increased. Use of these sites is opportunistic based on habitat availability, and most of these sites are not anticipated to meaningfully contribute to subspecies viability or support high numbers of birds.

The South Puget Lowlands region has an overall increasing population trend (based on the 2013–2019 survey data). The region contains four local populations with high condition, one local population with moderate condition, and three local populations with low condition. Those local populations with low condition have

small, declining populations and occur in areas where management activities have negative impacts on adult and juvenile birds, currently limiting resiliency. The populations at the JBLM airfields and 13th Division increased between 2013 and 2019 and movement between sites and habitat quality supports high resiliency. The Shelton Airport has a declining population trend. The Olympia Airport has good connectivity and its condition is moderate, but the condition of the Shelton and Tacoma airports are low.

The Pacific Coast and Lower Columbia region has an overall stable population trend (based on the 2013–2019 survey data). It has two local populations in high condition (including Sandy Island which is managed for the conservation of streaked horned lark), nine local populations in moderate condition, 13 local populations with low condition, and two locations that have no breeding pairs and are assumed extirpated (Oyhut Spit and Johns River Island). While Leadbetter Point is managed to improve habitat quality for larks and reduce corvid predation, the local population has fluctuated in the last several years and is currently considered unstable. A number of coastal sites and several Columbia River sites have low resiliency due to low abundance, small patches of high-quality habitat that currently limit potential abundance, limited connectivity, and/or management activities that are not optimal for successful breeding. While the Pacific Coast area currently has low numbers of breeding pairs, recent detections at Clatsop Spit (a previously unoccupied site) indicate the species could recolonize areas with suitable habitat. Streaked horned larks, however, have not recolonized new sites in the South Puget Lowlands despite 20 years of prairie restoration and intensive monitoring, suggesting recolonization is site-specific and difficult to predict.

The number of breeding pairs in Willamette Valley region appears to have increased for 10 local populations (based on the 2013–2019 survey data), and the region supports two local populations in high condition, five in moderate condition, and three in low condition. One historical location at Salem Airport had no breeding pairs in surveys from 2013–2019 and is assumed extirpated. The survey results reported in Table 1, above, may represent a small portion of the total number of streaked horned larks in the Willamette Valley due to lack of access on private lands, and there is no information to infer the condition of these potential populations.

The draft recovery plan for streaked horned lark (U.S. Fish and Wildlife Service 2019, entire) provides some thoughts on potential adequate redundancy and representation for the subspecies. The plan recommends that 38 resilient sites be managed for long-term conservation: Eight sites in the South Puget Lowlands; three sites along the Pacific Coast and six sites in the Lower Columbia River; and, 21 sites in the Willamette Valley. The current redundancy of streaked horned lark is characterized by 42 local populations across the range of the subspecies (eight in the South Puget Lowlands, five along the Pacific Coast and 19 in the Lower Columbia River, and 10 (accessible sites for surveys) in the Willamette Valley). Across the range, eight sites are considered high condition, 15 are ranked moderate, and 19 ranked low. There are at least two local populations ranked high in each regional population, suggesting relatively good representation in varying habitats, including prairies, wetlands, coastal dunes, sandy islands, airports and road margins, and agricultural fields. The rangewide distribution of 42 local populations confers some measure of protection against catastrophic events, particularly in the Willamette Valley where relatively large numbers of birds move about in response to changing habitat conditions. Recent detections of birds at sites previously unoccupied (*i.e.,* Clatsop Spit) suggest individuals are actively moving between sites, adapting to new areas and potentially recolonizing areas with suitable habitat. Additional local populations in high and moderate condition throughout the range would benefit the overall level of redundancy and representation for the subspecies.

Future Condition

The main factors influencing the future viability of the streaked horned lark include ongoing and sustained habitat loss; continued land management activities and related effects; recreation; and, the synergistic effects of climate change and small population size. We used the same habitat and population metrics to assess future condition of the local populations in response to projected land use changes and climate conditions. We forecasted the condition of local populations over time under three scenarios and use this information to forecast the viability of the streaked horned lark over the next 30 years. We chose 30 years because it is within the range of the available hydrological and climate change model forecasts, encompasses approximately five generations, and represents a biologically meaningful timeframe in which we could expect to observe any plausible changes in the status of the streaked horned lark.

We evaluated land use trends by looking at data on the quantity and type of agricultural crops in production throughout the State every 5 years from the U.S. Department of Agriculture, National Agricultural Statistics Service. In the State of Oregon, where larks largely occur on private agricultural lands, we evaluated trends in land use and crop type over the past 20 years to inform future trends. Specifically, we used these data to evaluate trends in the overall quantity of grass and other seed farms, and compared the changes to trends in the quantity of crop types that do not provide suitable habitat for larks, such as hazelnut orchards, blueberry farms, and wine grapes for viticulture.

To assess effects to the streaked horned lark from climate change, we relied on projections to mid-century from the U.S. Geological Survey, Land Change Science Program National Climate Change Viewer (Alder and Hostetler 2013, entire). The Coupled Model Intercomparison Project 5 provides a range of variability in climate projections for the time period 2025 to 2049. We used the combined range of the projection from two model scenarios, representative concentration pathways (RCP) 4.5 and RCP 8.5, to evaluate a range of potential future conditions. RCP 4.5 predicts that greenhouse gas emissions stabilize by the end of the century; RCP 8.5 predicts emissions continue to rise unchecked through the end of the century. Climate model results largely follow the same trajectory until mid-century (*e.g.,* 2040s to 2050s) and diverge beyond that point, resulting in greater uncertainty beyond 2050. For this analysis, we evaluated possible future conditions using these climate scenarios and the resulting impacts on species and habitat through the year 2050. Climate change is not expected to decrease the resiliency of any local populations in the prairie ecosystem because prairie and grassland ecosystems are well adapted to warm and dry conditions like the periodic soil drought and future increases in temperature and drought forecasted for those areas. With respect to coastal populations however, sea level rise, increased coastal erosion, and more severe weather events will cause significant effects to lark habitats. Climate change may limit the resiliency of some local populations on the coast by amplifying the negative effects from habitat loss or the spread of invasive species where not managed.

We forecasted what the streaked horned lark may experience in terms of resiliency, redundancy, and representation under three plausible future scenarios over the next 30 years: Status quo, improved conditions, and degraded conditions. Under the status quo, the adverse effects of habitat loss, climate change, and management activities and related effects are consistent with current levels (including current levels of conservation); the level of recreation increases in accordance with human population growth. Under improved conditions, the adverse effects of habitat loss and climate change are reduced compared to current conditions; management activities and related effects are consistent with current levels with additional conservation measures to protect larks; and the level of recreation increases in accordance with human population growth. However, both recreation and management activities and related effects act on larger lark populations, resulting in reduced impact to overall population status. Under degraded conditions, the adverse effects of habitat loss and climate change are increased; management activities and related effects continue with no additional conservation measures; and the level of recreation increases in accordance with human population growth. However, both recreation and management activities and related effects act on smaller population sizes, resulting in increased impact to overall population status.

Under the three future scenarios selected for this analysis, the number and size of extant populations change in response to assumed habitat conditions and changes in management activities at individual sites. Changes in population condition impact the overall species' redundancy and representation. Under the status quo scenario, one population in the South Puget Lowlands drops from high to moderate condition, four local populations in the Pacific Coast and Columbia River region drop from moderate to low condition, and all five moderate populations in the Willamette Valley drop to low condition. Even though influence factors don't change in magnitude from current levels under this scenario, the synergistic effects of small population size would amplify the effect of negative influence factors in some local populations overtime. Under this scenario, the subspecies would continue to occupy roughly an equal number of habitat types and distribution of 42 local populations across the range, but some small, isolated populations may be at risk of eventual extirpation without intentional habitat management or conservation measures.

Under the improved conditions scenario, careful management and conservation actions are implemented to increase the quantity, quality, and distribution of suitable habitats for streaked horned larks. One local population in the South Puget Lowlands and three in the Pacific Coast and Columbia River region improve from moderate to high condition, and one population in each of the South Puget lowlands and Willamette Valley regions move from low to moderate. As local populations become more resilient under this scenario, the species' ability to move between sites in response to changing environmental conditions and re-establish breeding populations would increase overall redundancy, buffering against adverse effects of catastrophic events. With respect to ecological representation, it is unlikely that birds would occupy new or different habitat types relative to current patterns of occupancy in the Pacific Coast and Lower Columbia region under this scenario, due to the limited availability of alternative habitats that provide the structural habitat features preferred by larks. In the South Puget Lowlands and Willamette Valley regions, the number of resilient local populations would increase; however it is unlikely that larks would disperse into the north Puget Lowlands region, or south into the Umpqua and Rogue Valley regions without substantial recovery efforts to support habitat development in these areas.

Under the degraded conditions scenario, further habitat loss and increased instability would lead to reduced condition in many local populations with only one local population remaining in high condition in the range of the subspecies (Rice Island). Eighteen local populations would decrease in condition across the range of the streaked horned lark, leaving 10 moderate condition and 30 low condition populations distributed across the three regions. Under this scenario, Shelton Airport would become extirpated, reducing redundancy. Many other local populations would decrease in resiliency and be at higher risk of extirpation, putting the subspecies at risk of further reduction in redundancy. If local populations become less resilient, larks would be less able to move between sites in response to changing environmental conditions or re-establish local populations following a catastrophic event. Furthermore, the loss of local populations would decrease the species' representation and overall ability to adapt to changing environmental conditions.

Because the streaked horned lark is dependent on land management activities that create and maintain suitable replacement habitat throughout the species' range, the future viability of the species relies upon the continuation of these actions. The synergistic effects of both small population size and the effects of climate change will likely amplify the negative effects of influence factors and reduce resiliency of some local populations, particularly along the Pacific Coast, the South Puget Lowlands, and the Lower Columbia River.

We note that, by using the SSA framework to guide our analysis of the scientific information documented in the SSA report, we have not only analyzed individual effects on the species, but we have also analyzed their potential cumulative effects. We incorporate the cumulative effects into our SSA analysis when we characterize the current and future condition of the species. To assess the current and future condition of the species, we undertake an iterative analysis that encompasses and incorporates the threats individually and then accumulates and evaluates the effects of all the factors that may be influencing the species, including threats and conservation efforts. Because the SSA framework considers not just the presence of the factors, but to what degree they collectively influence risk to the entire species, our assessment integrates the cumulative effects of the factors and replaces a standalone cumulative effects analysis.

Determination of Streaked Horned Lark's Status

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species meets the definition of an endangered species or a threatened species. The Act defines ''endangered species'' as a species in danger of extinction throughout all or a significant portion of its range, and ''threatened species'' as a species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether a species meets the definition of ''endangered species'' or ''threatened species'' because of any of the following 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.

Status Throughout All of Its Range

We evaluated threats to the streaked horned lark and assessed the cumulative effect of the threats under the Act's section 4(a)(1) factors. The primary driver of the status of streaked horned lark has been the scarcity of large, open spaces with very early seral stage vegetation. The loss of historical disturbance regimes that created these open spaces impacted the abundance and distribution of historical populations, but the impact occurred decades ago and is not ongoing. The best available information does not indicate that overutilization (Factor B), predation or disease (Factor C), pesticides, or loss of historical disturbance regimes (Factor A) are threats to the viability of the subspecies. The streaked horned lark has been affected through loss of preferred habitats (Factor A) as a result of successional changes in plant species composition and encroachment of woody vegetation; invasion of beach grasses; conversion of suitable habitat into unsuitable habitat through changes in land use; and changes in agricultural practices from crops that mimic preferred habitats (*i.e.,* grass seed farms) to crops that diminish habitat suitability (*i.e.,* hazelnut orchards and blueberry farms). The streaked horned lark is also affected by land management activities and related affects, as well as other human activities (Factor E) including agricultural activities, airport management activities and related airstrikes, military training and related activities, the placement of dredged materials, and recreation.

Despite the ongoing influence of these factors, however, the subspecies does not appear to be currently in danger of extinction as none of these factors influence populations of the streaked horned lark or its habitat at a level that is currently impacting the viability of the subspecies. Survey data from some regularly monitored sites across the range of the subspecies show an increase from 198 breeding pairs in 2013 to 383 breeding pairs in 2019. The subspecies has shown relative stability for the last 7 years based on survey data from known populations, with 42 redundant local populations across the range. Several local populations in all three representative regions have high condition, and a total of 23 local populations across the range have high or moderate condition. Negative influence factors on the subspecies have not fluctuated much for the last 20 years and are not of a scope or magnitude such that the subspecies is currently in danger of extinction. Local populations in South Puget Lowlands and Lower Columbia River populations have benefited from conservation efforts implemented as part of section 7 consultations under the Act.

Abundance of larks across the Willamette Valley appears relatively high, but many of these local populations cannot be surveyed due to lack of access. Although the current abundance of local populations along the Pacific Coast is lower than other areas, it has been low for many years, and we see no apparent declining trend in this regional population based on survey data from 2013 to 2019. Recent detections of birds at Clatsop Spit, as well as sites with restored habitat on private lands in the Willamette Valley, indicate that individuals can move between sites, and there are a few instances of detections at previously unoccupied locations, but recolonization appears very low and difficult to predict.

In the foreseeable future, however, there is potential for a decline in resiliency of local populations across the range. The loss of preferred habitat will continue from plant succession and encroachment of woody vegetation, invasion of beach grasses, changes in land use, and changes in beneficial agricultural practices. The regular large-scale, human-caused disturbance (burning, mowing, cropping, chemical treatments, or placement of dredged materials) that now creates and maintains replacement habitat for the streaked horned lark will continue, as will the related effects of these activities that can negatively impact individual lark (nest destruction, mortality, disturbance, and aircraft strikes). Recreation will also continue. Any negative effects from these factors will likely be amplified in some local populations due to the synergistic effects related to small population size and the increased effects of climate change in the range over the next 30 years, particularly along the Pacific Coast, the South Puget Lowlands, and Lower Columbia River. As climate change and small population size increase in influence, the realized benefit of these replacement habitats to the subspecies may decrease.

Additionally, any future changes in the maintenance of these landscapes will affect the resiliency of larks in the area. Agriculture remains the primary influence on land use in the Willamette Valley, and the resilience of larks in that area is tied to practices that can change easily given market demands. This uncertainty regarding future land use and anthropogenic effects to habitat increases the potential risk of extinction in the foreseeable future. Numerous conservation measures resulting from section 7 consultation under the Act in the range of the streaked horned lark have helped reduce effects of threats on the subspecies (Factor D), but the continued effects of habitat loss (Factor A), land management activities and related effects, and recreation, in combination with small population size and the effects of climate change (Factor E), are expected to reduce viability of the subspecies over the next 30 years.

Thus, after assessing the best available information, we conclude that the streaked horned lark is not currently in danger of extinction but is likely to become in danger of extinction within the foreseeable future throughout all of its range.

Status Throughout a Significant Portion of Its Range

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so in the foreseeable future throughout all or a significant portion of its range. The court in *Center for Biological Diversity* v. *Everson,* 2020 WL 437289 (D.D.C. Jan. 28, 2020) (*Center for Biological Diversity*), vacated the aspect of the Final Policy on Interpretation of the Phrase ''Significant Portion of Its Range'' in the Endangered Species Act's Definitions of ''Endangered Species'' and ''Threatened Species'' (79 FR 37578; July 1, 2014) that provided that the Service does not undertake an analysis of significant portions of a species' range if the species warrants listing as threatened throughout all of its range. Therefore, we proceed to evaluating whether the species is endangered in a significant portion of its range—that is, whether there is any portion of the species' range for which both (1) the portion is significant; and (2) the species is in danger of extinction in that portion. Depending on the case, it might be more efficient for us to address the ''significance'' question or the ''status'' question first. We can choose to address either question first. Regardless of which question we address first, if we reach a negative answer with respect to the first question that we address, we do not need to evaluate the other question for that portion of the species' range.

Following the court's holding in *Center for Biological Diversity,* we now consider whether there are any significant portions of the species' range where the species is in danger of

extinction now (*i.e.,* endangered). In undertaking this analysis for the streaked horned lark, we choose to address the status question first—we consider information pertaining to the geographic distribution of both the species and the threats that the species faces to identify any portions of the range where the species is endangered.

For the streaked horned lark, we considered whether the threats are geographically concentrated in any portion of the species' range at a biologically meaningful scale. We examined the following influence factors (including cumulative effects): Loss of preferred habitats as a result of successional changes in plant species composition and encroachment of woody vegetation; invasion of beach grasses; conversion of suitable habitat into unsuitable habitat through changes in land use; changes in agricultural practices from crops that mimic preferred habitats to crops that diminish habitat suitability; land management activities and related effects including airport management activities, military training, and the placement of dredged materials; and recreation. The influence of these factors vary somewhat across the range, and there is no portion of the range where there is currently a biologically meaningful concentration of threats relative to other areas in the range. Although the current abundance of local populations along the Pacific Coast is low compared to other areas, it has been low for many years, the size of those coastal sites is relatively small compared to other local populations and therefore naturally limits the number of breeding pairs, and we see no apparent declining trend in this regional population based on survey data between 2013 and 2019. However, in the foreseeable future, the synergistic effects of small population size and climate change will likely amplify the effects of any ongoing threats on some local populations in the range of the subspecies, particularly along the Pacific Coast, in the South Puget Lowlands, and along the Lower Columbia River.

We found no concentration of threats in any portion of the streaked horned lark's range at a biologically meaningful scale. Thus, there are no portions of the species' range where the species has a different status from its rangewide status. Therefore, no portion of the species' range provides a basis for determining that the species is in danger of extinction in a significant portion of its range, and we determine that the species is likely to become in danger of extinction within the foreseeable future throughout all of its range. This is consistent with the courts' holdings in *Desert Survivors* v. *Department of the Interior,* No. 16–cv–01165–JCS, 2018 WL 4053447 (N.D. Cal. Aug. 24, 2018), and *Center for Biological Diversity* v. *Jewell,* 248 F. Supp. 3d, 946, 959 (D. Ariz. 2017).

Determination of Status

Our review of the best available scientific and commercial information indicates that the streaked horned lark meets the definition of a threatened species. Therefore, we propose to affirm the current listing of the streaked horned lark as a threatened species in accordance with sections 3(20) and 4(a)(1) of the Act.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened species under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing results in public awareness, and conservation by Federal, State, Tribal, and local agencies; private organizations; and individuals. The Act encourages cooperation with the States and other countries and calls for recovery actions to be carried out for listed species. The protection required by Federal agencies and the prohibitions against certain activities are discussed, in part, below.

The primary purpose of the Act is the conservation of endangered and threatened species and the ecosystems upon which they depend. The ultimate goal of such conservation efforts is the recovery of these listed species, so that they no longer need the protective measures of the Act. Section 4(f) of the Act calls for the Service to develop and implement recovery plans for the conservation of endangered and threatened species. The recovery planning process involves the identification of actions that are necessary to halt or reverse the species' decline by addressing the threats to its survival and recovery. The goal of this process is to restore listed species to a point where they are secure, self-sustaining, and functioning components of their ecosystems.

Recovery planning consists of preparing draft and final recovery plans, beginning with the development of a recovery outline and making it available to the public within 30 days of a final listing determination. The recovery outline guides the immediate implementation of urgent recovery actions and describes the process to be used to develop a recovery plan. Revisions of the plan may be done to address continuing or new threats to the species, as new substantive information becomes available. The recovery plan also identifies recovery criteria for review of when a species may be ready for reclassification from endangered to threatened (''downlisting'') or removal from protected status (''delisting''), and methods for monitoring recovery progress. Recovery plans also establish a framework for agencies to coordinate their recovery efforts and provide estimates of the cost of implementing recovery tasks. Recovery teams (composed of species experts, Federal and State agencies, nongovernmental organizations, and stakeholders) are often established to develop recovery plans. A notice of the draft recovery plan for streaked horned lark was published in the **Federal Register** on October 30, 2019 (84 FR 58170); the draft plan is available on our website (*http://www.fws.gov/endangered*), or from our Oregon Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Implementation of recovery actions generally requires the participation of a broad range of partners, including other Federal agencies, States, Tribes, nongovernmental organizations, businesses, and private landowners. Examples of recovery actions include habitat restoration (*e.g.,* restoration of native vegetation), research, captive propagation and reintroduction, and outreach and education. The recovery of many listed species cannot be accomplished solely on Federal lands because their range may occur primarily or solely on non-Federal lands. To achieve recovery of these species requires cooperative conservation efforts on private, State, and Tribal lands.

Funding for recovery actions is available from a variety of sources, including Federal budgets, State programs, and cost-share grants for non-Federal landowners, the academic community, and nongovernmental organizations. In addition, pursuant to section 6 of the Act, the State(s) of Oregon and Washington are eligible for Federal funds to implement management actions that promote the protection or recovery of the streaked horned lark. Information on our grant programs that are available to aid species recovery can be found at: *http://www.fws.gov/grants.*

Please let us know if you are interested in participating in recovery efforts for this species. Additionally, we invite you to submit any new information on this species whenever it becomes available and any information you may have for recovery planning

purposes (see **FOR FURTHER INFORMATION CONTACT**).

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

Federal agency actions within the species' habitat that may require conference or consultation or both as described in the preceding paragraph include management and any other landscape-altering activities on Federal lands administered by the Service; issuance of section 404 Clean Water Act (33 U.S.C. 1251 *et seq.*) permits by the Corps; and road construction by the Federal Highway Administration in cooperation with the Service at Baskett Slough NWR.

It is our policy, as published in the **Federal Register** on July 1, 1994 (59 FR 34272), to identify to the maximum extent practicable at the time a species is listed, those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of a listing on proposed and ongoing activities within the range of the species. The discussion below regarding protective regulations under section 4(d) of the Act complies with our policy.

II. Proposed Rule Issued Under Section 4(d) of the Act

Background

Section 4(d) of the Act contains two sentences. The first sentence states that the Secretary shall issue such regulations as he deems necessary and advisable to provide for the conservation of species listed as threatened. The U.S. Supreme Court has noted that statutory language like ''necessary and advisable'' demonstrates a large degree of deference to the agency (see *Webster* v. *Doe,* 486 U.S. 592 (1988)). Conservation is defined in the Act to mean the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Additionally, the second sentence of section 4(d) of the Act states that the Secretary may by regulation prohibit with respect to any threatened species any act prohibited under section 9(a)(1), in the case of fish or wildlife, or section 9(a)(2), in the case of plants. Thus, the combination of the two sentences of section 4(d) provides the Secretary with wide latitude of discretion to select and promulgate appropriate regulations tailored to the specific conservation needs of the threatened species. The second sentence grants particularly broad discretion to the Service when adopting some or all of the prohibitions under section 9.

The courts have recognized the extent of the Secretary's discretion under this standard to develop rules that are appropriate for the conservation of a species. For example, courts have upheld rules developed under section 4(d) as a valid exercise of agency authority where they prohibited take of threatened wildlife, or include a limited taking prohibition (see *Alsea Valley Alliance* v. *Lautenbacher,* 2007 U.S. Dist. Lexis 60203 (D. Or. 2007); *Washington Environmental Council* v. *National Marine Fisheries Service,* 2002 U.S. Dist. Lexis 5432 (W.D. Wash. 2002)). Courts have also upheld 4(d) rules that do not address all of the threats a species faces (see *State of Louisiana* v. *Verity,* 853 F.2d 322 (5th Cir. 1988)). As noted in the legislative history when the Act was initially enacted, ''once an animal is on the threatened list, the Secretary has an almost infinite number of options available to him with regard to the permitted activities for those species. He may, for example, permit taking, but not importation of such species, or he may choose to forbid both taking and importation but allow the transportation of such species'' (H.R. Rep. No. 412, 93rd Cong., 1st Sess. 1973).

On October 3, 2013, we issued a rule under the authority of section 4(d) of the Act to provide for the conservation of the streaked horned lark (78 FR 61452) (see 50 CFR 17.41(a)). That rule applies all of the prohibitions of section 9 of the Act to the streaked horned lark, with the following exceptions for incidental take: (1) Certain activities on airports on non-Federal lands; (2) certain agricultural activities on non-Federal land in the range of the subspecies in Oregon and Washington; (3) certain noxious weed control activities on non-Federal lands; and (4) habitat restoration activities that benefit the conservation of streaked horned lark.

Exercising authority under section 4(d), we developed a proposed revised 4(d) rule that is designed to address the streaked horned lark's specific threats and conservation needs. Although the statute does not require us to make a ''necessary and advisable'' finding with respect to the adoption of specific prohibitions under section 9, for the reasons stated below we find that this rule as a whole satisfies the requirement in section 4(d) of the Act to issue regulations deemed necessary and advisable to provide for the conservation of the streaked horned lark. As discussed above under *Summary of Biological Status and Threats,* we have concluded that the streaked horned lark is likely to become in danger of extinction within the foreseeable future primarily due to the synergistic effects of small population size and climate change on continued loss and degradation of habitat, land management activities and related effects, and recreation. The influence of these factors is expected to continue into the foreseeable future.

The provisions of this proposed revised 4(d) rule would promote conservation of the streaked horned lark by encouraging management of the landscape in ways that meet both land management considerations and the conservation needs of the streaked horned lark. The provisions of this proposed revised 4(d) rule are one of many tools that we would use to promote the conservation of the streaked horned lark. For these reasons, we find the proposed revised 4(d) rule as a whole is necessary and advisable to provide for conservation of the streaked horned lark.

Provisions of the Proposed Revised 4(d) Rule

The provisions of the proposed revised 4(d) rule for the streaked horned lark are discussed in more detail below, but we note here that the substantive differences between the current 4(d) rule for the streaked horned lark at 50 CFR 17.41(a) and this proposed revised 4(d) rule are limited to the following: The expansion of the exception for incidental take for certain agricultural activities on non-Federal lands throughout the range of the subspecies in Oregon and Washington; and, the addition of an exception to the take prohibition for incidental take associated with habitat restoration

activities that benefit streaked horned lark. The primary driver of the status of streaked horned lark has been the scarcity of large, open spaces with very early seral stage vegetation. Therefore, this 4(d) rule is designed to support the continuation of activities taking place in the range of the subspecies that lead to these features, and to encourage the development of these features in new areas in the range of the subspecies in the future. The proposed revised 4(d) rule would provide for the conservation of the streaked horned lark by prohibiting take, except as otherwise authorized, permitted, or incidental to the following activities: Wildlife hazard management at airports and accidental strikes by aircraft, normal agricultural practices in Oregon and Washington, noxious weed control on non-Federal lands, and habitat restoration activities beneficial to streaked horned lark. The prohibition, and the exceptions, are, for the most part, already included in the current 4(d) rule for the streaked horned lark at 50 CFR 17.41(a). All take not included in the exceptions would continue to be prohibited in order to support existing populations of the streaked horned lark.

Some management actions taken at airports are generally beneficial to streaked horned larks and have led to the creation of replacement habitat the subspecies relies upon. Streaked horned larks breed successfully and maintain populations at airports in the South Puget Sound and Willamette Valley. Airports maintain safe conditions for aviation in part by routinely implementing programs to minimize the presence of hazardous wildlife on airfields; these activities unintentionally create suitable habitat for streaked horned larks. Activities involved in wildlife hazard management at airports that benefit streaked horned lark include hazing of hazardous wildlife (geese and other large birds and mammals) and modification and management of forage, water, and shelter to be less attractive to these hazardous wildlife, including vegetation management to maintain desired grass height on or adjacent to airports through mowing, discing, herbicide use, or burning. As with other land management activities, vegetation management during the nesting season has the potential to destroy streaked horned lark nests and young. However, despite concerns over potential adverse effect of vegetation management during the breeding season at airports, this activity is very important to the maintenance of the low-statured vegetation required by nesting and wintering larks in the area. Therefore, excepting hazardous wildlife management from the Act's prohibitions of take when conducted by airport staff or employees contracted by the airport to perform hazardous wildlife management activities, furthers the conservation of the subspecies by helping to prevent the spread of those noxious weeds that may render existing habitat unsuitable for the streaked horned lark.

The listing of the streaked horned lark imposes a requirement on airport managers where the subspecies occurs to consider the effects of their management activities on this subspecies when actions are funded or approved by the Federal Aviation Administration. Excepting hazardous wildlife management and accidental aircraft strikes from prohibitions on take eliminates the incentive for airports to reduce or eliminate replacement habitat that supports populations of streaked horned larks from the airfields, and therefore provides for the conservation of the species by allowing current beneficial management activities to continue. Accidental aircraft strikes are an unavoidable consequence of the vegetation management that also maintains habitat that supports breeding pairs. While aircraft strikes do occur in several local populations at airports throughout the range of the species (particularly in the South Puget Lowlands), the rate appears relatively low. Additionally, the potential take of streaked horned lark associated with the routine management, repair, and maintenance of roads and runways is minimal. Therefore, in order to support activities involved in wildlife hazard management that maintain habitat features beneficial to streaked horned lark, incidental take associated with wildlife hazard management activities, as well as aircraft strikes and routine maintenance of existing roads and runways at airports is excepted from the prohibition on take. We recommend that airport operators follow the guidance provided in Federal Aviation Administration advisory circular 150/5200–33C, ''Hazardous Wildlife Attractants on or near Airports'' (FAA 2020, entire), and all other applicable related guidance.

In the Willamette Valley, large expanses of burned prairie or the scour plains of the Willamette and Columbia Rivers may have provided suitable habitat for streaked horned larks in the past. With the loss of these historical habitats during the last century, alternative breeding and wintering sites, including active agricultural lands, have become critical for the continued survival and recovery of the streaked horned lark. The largest area of potential habitat for streaked horned larks is the agricultural land base in the Willamette Valley. Larks are attracted to the wide open landscape context and low vegetation structure in agricultural fields, especially in grass seed fields, probably because those working landscapes resemble the historical habitats formerly used by the subspecies when the historical disturbances associated with floods and fires maintained a mosaic of suitable habitats. Habitat characteristics of agricultural lands used by streaked horned larks include: (1) Bare or sparsely vegetated areas within or adjacent to grass seed fields, pastures, or fallow fields; (2) recently planted (0 to 3 years) conifer farms with extensive bare ground; and (3) wetland mudflats or ''drown outs'' (*i.e.,* washed out and poorly performing areas within grass seed or row crop fields). Currently in the Willamette Valley, there are approximately 420,000 ac (169,968 ha) of grass seed fields and approximately 500,000 ac (202,343 ha) of other agriculture. In any year, some portion of these 920,000 ac (372,311 ha) will have suitable streaked horned lark habitat, but the geographic location of those areas may not be consistent from year to year, nor can we predict their occurrence due to variable agricultural practices (crop rotation, fallow fields, etc.), and we cannot predict the changing and dynamic locations of those areas.

While agricultural activities also have the potential to harm or kill individual streaked horned larks or destroy their nests, maintenance of extensive agricultural lands (primarily grass seed farms) in the Willamette Valley is crucial to maintaining the population of streaked horned larks in the valley and aiding in the recovery of the subspecies in Oregon. Although we are unaware of any current breeding populations of streaked horned larks on agricultural lands in Washington, use of these habitats by streaked horned larks would aid in recovery of the subspecies in Washington and is therefore encouraged. We propose to expand the exception for incidental take for certain agricultural activities on non-Federal lands in the proposed revised 4(d) rule to the entire range of the subspecies, to encourage management actions that would facilitate the use of areas other than civilian and military airports by streaked horned within the range of the subspecies in Oregon and Washington.

Because landowners are free to allow vegetation growth that results in the conversion of lands into habitats

unsuitable for the streaked horned lark, conservation of the species will benefit from the support of agricultural practices that result in the creation and maintenance of habitat that is suitable for the subspecies. This proposed revised 4(d) rule, if finalized, would remove the incentive for private landowners in Oregon to discontinue activities resulting in suitable habitat for larks on the highest-priority agricultural lands based on section 9 liability concerns. Additionally, the rule would reduce any section 9 liability concerns of private landowners in Washington considering the implementation of agricultural practices that result in the creation and maintenance of habitat that is suitable for the subspecies. The primary crop type that results in habitat features preferred by lark is grass seed, and the typical harvest (combining) period for grass seed fields occurs in late June or early July, after the most active part of the breeding season for larks is done. Because the timing of ground disturbance for grass seed farms is after the primary part of the nesting season is over, it does not put the reproductive success of the subspecies at great risk, the benefits of encouraging the continuation of the inadvertent creation of lark habitat through normal grass seed farming practices outweigh the benefit of restricting the timing of this exception to take. Excepting routine agricultural activities on non-Federal lands from the prohibition on take would help provide an overall benefit to the subspecies by maintaining suitable habitat for the streaked horned lark. This exception to the prohibition on take for agricultural activities would be rangewide in Oregon and Washington, and we find that the definition of ''normal farming practices'' in this 4(d) rule is consistent with relevant Oregon and Washington State laws (Oregon Revised Statutes (ORS), chapter 30, section 30.930, and Revised Code of Washington (RCW), title 7, chapter 7.48, section 7.48.310, respectively).

Streaked horned larks nest, forage, and winter on extensive areas of bare ground with low-statured vegetation. These areas include native prairies, coastal dunes, fallow and active agricultural fields, wetland mudflats, sparsely vegetated edges of grass fields, recently planted conifer farms with extensive bare ground, moderately to heavily grazed pastures, gravel roads or gravel shoulders of lightly traveled roads, airports, and dredge deposition sites in the Lower Columbia River. The suppression and loss of ecological disturbance regimes such as fire and flooding across vast portions of the landscape have resulted in altered vegetation structure and facilitated invasion by nonnative grasses and woody vegetation, including noxious weeds, rendering habitat unsuitable for streaked horned larks. By their nature, noxious weeds grow aggressively and multiply quickly, negatively affecting all types of habitats, including those used by larks. Some species of noxious weeds spread across long distances through wind, water, and animals, as well as via humans and vehicles, thereby affecting habitats far away from the source plants.

Because noxious weed control maintains the low statured vegetation and the open landscape that streaked horned lark relies upon, this activity is essential to the retention of suitable nesting, wintering, and foraging habitat. As with other land management activities, noxious weed control during the nesting season has the potential to destroy streaked horned lark nests and young. On the other hand, streaked horned larks can benefit from weeds, as they eat the seeds of weedy forbs and grasses. However, despite any potential benefit from weeds or concerns over timing of control, the eradication (or removal) of noxious weeds wherever they may occur is important to the maintenance of the low-statured vegetation required by nesting and wintering larks. Therefore, excepting the routine mechanical or chemical management of noxious weeds from the Act's prohibitions of take, furthers the conservation of the subspecies by helping to prevent the spread of those noxious weeds that may render habitat unsuitable for the streaked horned lark. It also encourages landowners to manage their lands in ways that meet their property management needs and also help to prevent degradation or loss of suitable habitat for the streaked horned lark. Noxious weed control targets those species included on County, State, and Federal noxious weed lists (see State and Federal lists via links at *http://plants.usda.gov/java/noxious;* Washington State counties each have a noxious weed control website, and selected Oregon State counties maintain noxious weed lists).

Finally, activities associated with streaked horned lark habitat restoration (*e.g.,* removing non-native plants and planting native plants, creating open areas, and maintaining sparse vegetation through vegetation removal or suppression via controlled burns) would be very beneficial to the subspecies; any adverse effects to the subspecies from these activities would likely be only short-term or temporary, especially with respect to harassment or disturbance of individual lark. In the long term, the risk of adverse effects to both individuals and populations is expected to be mitigated as these types of activities will likely benefit the subspecies by helping to preserve and enhance the habitat of existing local populations over time. Reasonable care for habitat management may include, but would not be limited to, procuring and implementing technical assistance from a qualified biologist on habitat management activities, and best efforts to minimize streaked horned lark exposure to hazards (*e.g.,* predation, habituation to feeding, entanglement, etc.). Therefore, we propose in the 4(d) rule an exception to the prohibition on take for any habitat restoration actions that would create or enhance streaked horned lark habitat, provided that reasonable care is taken to minimize such take.

We acknowledge that all of these activities excepted from incidental take in this rule have the potential to result in destruction of nests, crushing of eggs or nestlings, or flushing of fledglings or adults when conducted during the active breeding season for streaked horned larks. The 2013 listing rule (78 FR 61452) included dredge spoil deposition timing and placement on Columbia River islands, incompatibly timed burning and mowing regimes, activities associated with military training, and activities associated with airports as threats to the subspecies. Despite these threats noted at the time of listing, the Service determined that timing restrictions on these activities were not appropriate, stating in the rule: ''Our purpose in promulgating a special rule to exempt take associated with activities that inadvertently create habitat for the streaked horned lark is to allow landowners to continue those activities without additional regulation. We believe that imposing a timing restriction would likely reduce the utility of the special rule for land managers, and could have the unintended side effect of causing landowners to discontinue their habitat creation activities'' (78 FR 61464). No timing restrictions were included in the 4(d) rule, and these land management activities have continued across the range since 2013. Survey data from some regularly monitored sites throughout the range of the subspecies now show an increase from 198 breeding pairs in 2013, to 383 breeding pairs in 2019, despite the lack of timing restrictions on land management activities. While the loss of individuals is never welcome, this 4(d) rule provides for the conservation of the subspecies by including provisions that

support the continuation of land management activities that create replacement habitat; the benefits of these provisions to the subspecies outweigh the cost of any loss of individuals.

As discussed above under *Summary of Biological Status and Threats,* multiple factors are affecting the status of the streaked horned lark. A range of activities have the potential to affect the streaked horned lark, including the management of hazardous wildlife at airports and associated airstrikes, routine agricultural activities, and the routine removal or other management of noxious weeds. Prohibiting take rangewide under section 9 of the Act to the streaked horned lark, will help preserve the species' remaining populations, slow their rate of decline, and allow for the maintenance of suitable habitat for the species. However, these same activities also benefit streaked horned lark through the creation of the very habitat features (large open spaces with very early seral stage vegetation) that streaked horned lark prefer; without these replacement habitats throughout the range, the status of the subspecies would likely be much worse. Therefore, while we are extending the take prohibition for the streaked horned lark, we are excepting from this prohibition take that is incidental to the management of hazardous wildlife at airports, accidental airstrikes by aircraft, routine agricultural activities, the routine removal or other management of noxious weeds, and habitat restoration activities. As discussed above, we believe that that these exceptions will provide for the conservation of the species by supporting the maintenance and creation of habitat features that streaked horned lark rely upon.

Under the Act, ''take'' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Some of these provisions have been further defined in regulations at 50 CFR 17.3. Take can result knowingly or otherwise, by direct and indirect impacts, intentionally or incidentally. Regulating incidental take would help preserve the species' remaining populations, slow their rate of decline, and decrease synergistic, negative effects from other threats.

We may issue permits to carry out otherwise prohibited activities, including those described above, involving threatened wildlife under certain circumstances. Regulations governing permits for threatened species are codified at 50 CFR 17.32. With regard to threatened wildlife, a permit may be issued for the following purposes: For scientific purposes, to enhance propagation or survival, for economic hardship, for zoological exhibition, for educational purposes, for incidental taking, or for special purposes consistent with the purposes of the Act. There are also certain statutory exemptions from the prohibitions, which are found in sections 9 and 10 of the Act.

We recognize the special and unique relationship with our State natural resource agency partners in contributing to conservation of listed species. State agencies often possess scientific data and valuable expertise on the status and distribution of endangered, threatened, and candidate species of wildlife and plants. State agencies, because of their authorities and their close working relationships with local governments and landowners, are in a unique position to assist the Services in implementing all aspects of the Act. In this regard, section 6 of the Act provides that the Services shall cooperate to the maximum extent practicable with the States in carrying out programs authorized by the Act. Therefore, any qualified employee or agent of a State conservation agency that is a party to a cooperative agreement with the Service in accordance with section 6(c) of the Act, who is designated by his or her agency for such purposes, will be able to conduct activities designed to conserve streaked horned lark that may result in otherwise prohibited take without additional authorization.

As a subspecies of the horned lark (*Eremophila alpestris*), the streaked horned lark is protected by the Migratory Bird Treaty Act (MBTA; 16 U.S.C. 703 *et seq.*). The MBTA makes it unlawful, at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, or any part, nest, or egg of any such bird included in the terms of four specific conventions between the United States and certain foreign countries (16 U.S.C. 703). See 50 CFR 10.13 for the list of migratory birds protected by the MBTA.

Like the current 4(d) rule for the subspecies, this proposed revised 4(d) rule adopts existing requirements under the MBTA as appropriate regulatory provisions for the streaked horned lark. Accordingly, under the proposed revised 4(d) rule, incidental take is not prohibited, and purposeful take is not prohibited if the activity is authorized or exempted under the MBTA, such as activities under a migratory bird rehabilitation permit necessary to aid a sick, injured, or orphaned bird. Thus, if a permit is issued for activities resulting in purposeful take of streaked horned larks under the MBTA, it will not be necessary to have an additional permit under the Act.

Nothing in this proposed revised 4(d) rule would change in any way the recovery planning provisions of section 4(f) of the Act, the consultation requirements under section 7 of the Act, or the ability of the Service to enter into partnerships for the management and protection of the streaked horned lark. However, interagency cooperation may be further streamlined through planned programmatic consultations for the species between Federal agencies and the Service, where appropriate. We ask the public, particularly State agencies and other interested stakeholders that may be affected by the proposed revised 4(d) rule, to provide comments and suggestions regarding additional guidance and methods that the Service could provide or use, respectively, to streamline the implementation of this proposed revised 4(d) rule (see *Information Requested,* above).

III. Required Determinations

Clarity of the Rule

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

(1) Be logically organized;

(2) Use the active voice to address readers directly;

(3) Use clear language rather than jargon;

(4) Be divided into short sections and sentences; and

(5) Use lists and tables wherever possible.

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

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

It is our position that, outside the jurisdiction of the U.S. Court of Appeals

for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*) in connection with regulations adopted pursuant to section 4(a) of the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). We also determine that 4(d) rules that accompany regulations adopted pursuant to section 4(a) of the Act are not subject to the National Environmental Policy Act.

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy ecosystems, to acknowledge that Tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes.

References Cited

A complete list of references cited in this proposed rulemaking is available on the internet at *http://www.regulations.gov* and upon request from the Oregon Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this proposed rule are the staff members of the Fish and Wildlife Service's Species Assessment Team and the Oregon Fish and Wildlife Office.

List of Subjects in 50 CFR Part 17

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

IV. Proposed Regulation Promulgation

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

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

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

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

■ 2. Amend § 17.41 by revising paragraph (a) to read as set forth below:

§ 17.41 Special rules—birds.

(a) Streaked horned lark (*Eremophila alpestris strigata*).

(1) *Prohibitions.* The following prohibitions that apply to endangered wildlife also apply to streaked horned lark. Except as provided under paragraph (a)(2) of this section and §§ 17.4 and 17.5, it is unlawful for any person subject to the jurisdiction of the United States to commit, to attempt to commit, to solicit another to commit, or cause to be committed, any of the following acts in regard to this species:

(i) Import or export, as set forth at § 17.21(b) for endangered wildlife.

(ii) Take, as set forth at § 17.21(c)(1) for endangered wildlife.

(iii) Possession and other acts with unlawfully taken specimens, as set forth at § 17.21(d)(1) for endangered wildlife.

(iv) Interstate or foreign commerce in the course of commercial activity, as set forth at § 17.21(e) for endangered wildlife.

(v) Sale or offer for sale, as set forth at § 17.21(f) for endangered wildlife.

(2) *Exceptions from prohibitions.* In regard to this species, you may:

(i) Conduct activities as authorized by a permit under § 17.32.

(ii) Take, as set forth at § 17.21(c)(2) through (4) for endangered wildlife, and (c)(6) and (7) for endangered migratory birds.

(iii) Take, as set forth at § 17.31(b).

(iv) Take incidental to an otherwise lawful activity caused by:

(A) The management of hazardous wildlife at airport facilities by airport staff or employees contracted by the airport to perform hazardous wildlife management activities. Hazardous wildlife is defined by the Federal Aviation Administration as species of wildlife, including feral animals and domesticated animals not under control, that are associated with aircraft strike problems, are capable of causing structural damage to airport facilities, or act as attractants to other wildlife that pose a strike hazard. Routine management activities include, but are not limited to, the following:

(1) Hazing of hazardous wildlife;

(2) Habitat modification and management of sources of forage, water, and shelter to reduce the attractiveness of the area around the airport for hazardous wildlife. This exception for habitat modification and management includes control and management of vegetation (grass, weeds, shrubs, and trees) through mowing, discing, herbicide application, or burning;

(3) Routine management, repair, and maintenance of roads and runways (does not include upgrades or construction of new roads or runways);

(B) Accidental aircraft strikes at airports on non-Federal lands.

(C) Agricultural (farming) practices implemented on farms consistent with State laws on non-Federal lands in Washington and Oregon.

(1) For the purposes of this rule, farm means any facility, including land, buildings, watercourses and appurtenances, used in the commercial production of crops, nursery stock, livestock, poultry, livestock products, poultry products, vermiculture products, or the propagation and raising of nursery stock.

(2) For the purposes of this rule, an agricultural (farming) practice means a mode of operation on a farm that is or may be used on a farm of a similar nature; is a generally accepted, reasonable, and prudent method for the operation of the farm to obtain a profit in money; is or may become a generally accepted, reasonable, and prudent method in conjunction with farm use; complies with applicable State laws; and is done in a reasonable and prudent manner. Common agricultural (farming) practices include, but are not limited to, the following activities:

(i) Planting, harvesting, rotation, mowing, tilling, discing, burning, and herbicide application to crops;

(ii) Normal transportation activities, and repair and maintenance of unimproved farm roads (this exemption does not include improvement or construction of new roads) and graveled margins of rural roads;

(iii) Livestock grazing according to normally acceptable and established levels;

(iv) Hazing of geese or predators; and

(v) Maintenance of irrigation and drainage systems.

(D) Removal or other management of noxious weeds. Routine removal or other management of noxious weeds are limited to the following, and must be conducted in such a way that impacts to non-target plants are avoided to the maximum extent practicable:

(1) Mowing;

(2) Herbicide and fungicide application;

(3) Fumigation; and

(4) Burning.

(E) Habitat restoration actions. Habitat restoration and enhancement activities for the conservation of streaked horned lark may include activities consistent with formal approved conservation plans or strategies, such as Federal or State plans that include streaked horned lark conservation prescriptions or compliance, which the Service has determined would be consistent with this rule.

(v) Possess and engage in other acts with unlawfully taken wildlife, as set forth at § 17.21(d)(2) through (d)(4).

* * * * *

Martha Williams,

Principal Deputy Director, Exercising the Delegated Authority of the Director, U.S. Fish and Wildlife Service.

[FR Doc. 2021–06943 Filed 4–12–21; 8:45 am]

BILLING CODE 4333–15–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 679

[Docket No. 210407–0077]

RIN 0648–BK42

Pacific Halibut Fisheries; Catch Sharing Plan

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Proposed rule; request for comments.

SUMMARY: NMFS issues this proposed rule to revise regulations for the commercial individual fishing quota (IFQ) Pacific halibut (halibut) fisheries for the 2021 IFQ fishing year. This proposed rule would remove limits on the maximum amount of halibut IFQ that may be harvested by a vessel, commonly known as vessel use caps, in IFQ regulatory areas 4A (Eastern Aleutian Islands), 4B (Central and Western Aleutian Islands), 4C (Central Bering Sea), and 4D (Eastern Bering Sea). This action is needed to provide additional flexibility to IFQ participants in 2021 to ensure allocations of halibut IFQ can be harvested by the limited number of vessels operating in these areas. This action is within the authority of the Secretary of Commerce to establish additional regulations governing the taking of halibut which are in addition to, and not in conflict with, those adopted by the International Pacific Halibut Commission (IPHC). This action is intended to promote the goals and objectives of the IFQ Program, the Northern Pacific Halibut Act of 1982, and other applicable laws.

DATES: Submit comments on or before April 28, 2021.

ADDRESSES: You may submit comments, identified by FDMS Docket Number NOAA–NMFS–2021–0032, by any of the following methods:

- *Electronic Submission:* Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to *https://www.regulations.gov* and enter NOAA–NMFS–2021–0032 in the Search box. Click on the ''Comment'' icon, complete the required fields, and enter or attach your comments.
- *Mail:* Submit written comments to Glenn Merrill, Assistant Regional Administrator, Sustainable Fisheries Division, Alaska Region NMFS, Attn: Susan Meyer. Mail comments to P.O. Box 21668, Juneau, AK 99802–1668.

Instructions: NMFS may not consider comments sent by any other method, to any other address or individual, or received after the end of the comment period. All comments received are a part of the public record and will generally be posted for public viewing on *http://www.regulations.gov* without change. All personal identifying information (*e.g.,* name, address), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will accept anonymous comments (enter N/A in the required fields if you wish to remain anonymous).

Electronic copies of the Categorical Exclusion and the Regulatory Impact Review (RIR) prepared for this action (referred to as the ''Analysis'') are available from *http://www.regulations.gov* or from the NMFS Alaska Region website at *http://alaskafisheries.noaa.gov.*

Additional requests for information regarding halibut may be obtained by contacting the IPHC, 2320 W Commodore Way, Suite 300, Seattle, WA 98199–1287; or Sustainable Fisheries Division, NMFS Alaska Region, P.O. Box 21668, Juneau, AK 99802; Sustainable Fisheries Division.

FOR FURTHER INFORMATION CONTACT: Abby Jahn, 907–586–7228.

SUPPLEMENTARY INFORMATION:

Authority for Action

The IPHC and NMFS manage fishing for halibut through regulations established under the authority of the Northern Pacific Halibut Act of 1982 (Halibut Act). The IPHC promulgates regulations governing the halibut fishery under the Convention between the United States and Canada for the Preservation of the Halibut Fishery of the Northern Pacific Ocean and Bering Sea (Convention). The IPHC's regulations are subject to approval by the Secretary of State with the concurrence of the Secretary of Commerce (Secretary). NMFS publishes the IPHC's regulations as annual management measures pursuant to 50 CFR 300.62. The 2021 IPHC annual management measures were published on March 9, 2021 (86 FR 13475).

The Halibut Act, 16 U.S.C. 773c(a) and (b), provides the Secretary with general responsibility to carry out the Convention and the Halibut Act. The Halibut Act, 16 U.S.C. 773c(c), also provides the North Pacific Fishery Management Council (Council) with authority to develop regulations, including limited access regulations, that are in addition to, and not in conflict with, approved IPHC regulations. Regulations recommended by the Council may be implemented by NMFS only after approval by the Secretary.

The Council has exercised its authority in developing halibut management programs for the subsistence, sport, and commercial halibut fisheries. The Secretary exercised authority to implement the commercial IFQ halibut fishery management program (58 FR 59375; November 9, 1993). The IFQ Program for the halibut fishery is implemented by Federal regulations at 50 CFR part 679.

The halibut IFQ fishery is managed in specific areas defined by the IPHC. These IFQ regulatory areas (Areas) are: Area 2A (California, Oregon, and Washington); Area 2B (British Columbia); Area 2C (Southeast Alaska), Area 3A (Central Gulf of Alaska), Area 3B (Western Gulf of Alaska), and Area 4 (subdivided into five areas, 4A through 4E, in the Bering Sea and Aleutian Islands of Western Alaska). These Areas are described at 50 CFR part 679, Figure 15. Halibut allocated under the IFQ program in Areas 2C, 3A, 3B, and Area 4 are subject to limits on the maximum amount of halibut IFQ that may be harvested by a vessel, commonly known as vessel use caps.

NMFS also allocates halibut to the Western Alaska Community Development Quota (CDQ Program) in Areas 4B, 4C, 4D, and 4E (§ 679.31(a)(2)). Halibut is allocated to the CDQ Program in Areas 4B, 4C, 4D, and 4E and those allocations are not subject to a vessel use cap. Throughout this preamble, the term ''vessel use cap''