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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R2–ES–2016–0138; FXES11130900000 178 FF09E42000]

RIN 1018–BB91

Endangered and Threatened Wildlife and Plants; Removal of the Lesser Long-Nosed Bat From the Federal List of Endangered and Threatened Wildlife

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: Under the authority of the Endangered Species Act of 1973, as amended, we, the U.S. Fish and Wildlife Service, are removing the lesser long-nosed bat *(Leptonycteris curasoae yerbabuenae*) from the Federal List of Endangered and Threatened Wildlife due to recovery. This determination is based on a thorough review of the best available scientific and commercial information, which indicates that the threats to this subspecies have been eliminated or reduced to the point that the subspecies has recovered and no longer meets the definition of endangered or threatened under the Act.

DATES: The rule is effective May 18, 2018.

ADDRESSES: *Copies of documents:* This final rule and supporting documents, including the Species Status Assessment (SSA) are available on *http://www.regulations.gov* in Docket No. FWS–R2–ES–2016–0138. In addition, the supporting file for this final rule will be available for public inspection, by appointment, during normal business hours, at the Arizona Ecological Services Field Office, 2321 W. Royal Palm Road, Suite 103, Phoenix, AZ 85021.

FOR FURTHER INFORMATION CONTACT: Steve Spangle, Field Supervisor, U.S. Fish and Wildlife Service, Arizona Ecological Services Field Office, 2321 W. Royal Palm Road, Suite 103, Phoenix, AZ 85021; by telephone (602–242–0210); or by facsimile (602–242–2513). If you use a telecommunications device for the deaf (TDD), call the Federal Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Endangered Species Act, as amended (ESA; 16 U.S.C. 1531 *et seq.*), a species may be added to the Lists of Endangered and Threatened Wildlife and Plants if it is endangered or threatened throughout all or a significant portion of its range. Adding a species to (''listing'') or removing a species from these Lists (''delisting'') can only be accomplished by issuing a rule.

What this document does. This rule makes final the removal of the lesser long-nosed bat *(Leptonycteris curasoae yerbabuenae)* from the Federal List of Endangered and Threatened Wildlife.

The basis for our action. Under the ESA, we can determine that a species is an endangered or threatened species based on 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 may delist a species if the best available scientific and commercial data indicate that the species is neither endangered or threatened. We have determined that the lesser-long nosed bat has recovered and no longer meets the definition of endangered or threatened under the Act.

Peer review and public comment. We sought comments on both the SSA and the proposed delisting rule from independent specialists to ensure that this rule is based on scientifically sound data, assumptions, and analyses. We also considered all comments and information received during the comment period.

Previous Federal Actions

In carrying out our responsibility to enforce the Endangered Species Act of 1973, as amended (ESA or Act; 16 U.S.C. 1531 *et seq.*), we, the U.S. Fish and Wildlife Service (Service), maintain the Lists of Endangered and Threatened Wildlife and Plants in title 50 of the Code of Federal Regulations. On September 30, 1988, we published a final rule in the **Federal Register** (53 FR 38456) to add the Mexican long-nosed bat (*Leptonycteris nivalis*) and Sanborn's long-nosed bat (*Leptonycteris sanborni* (=*L. yerbabuenae*)) as endangered species to the Federal List of Endangered and Threatened Wildlife (List). That rule became effective on October 31, 1988. In 1993, we amended the List by revising the entry for the Sanborn's long-nosed bat to ''Bat, lesser (=Sanborn's) long-nosed'' with the scientific name ''*Leptonycteris curasoae yerbabuenae.*'' We issued a recovery plan for the lesser long-nosed bat on March 4, 1997.

In 2001, we revised the entry for the lesser long-nosed bat to remove the synonym of ''Sanborn's''; consequently, the listing reads, ''Bat, lesser long-nosed'' and retains the scientific name ''*Leptonycteris curasoae yerbabuenae.*'' Cole and Wilson (2006) recommended that *L. c. yerbabuenae* be recognized as *Leptonycteris yerbabuenae.* Additionally, Wilson and Reeder's (2005) ''Mammal Species of the World (Third Edition), an accepted standard for mammalian taxonomy, also indicates that *L. yerbabuenae* is a species distinct from *L. curasoae.* Currently, the most accepted and currently used classification for the lesser long-nosed bat is *L. yerbabuenae;* however, the Service continues to classify the listed entity as *Leptonycteris curasoae yerbabuenae.* On August 30, 2007, we completed a 5-year review, in which we recommended reclassifying the species from endangered to threatened status (*i.e.,* ''downlisting'') under the Act (Service 2007; available online at *http://www.regulations.gov* in Docket No. FWS–R2–ES–2016–0138 or *https://www.fws.gov/southwest/es/arizona/Lesser.htm*). We recommended, as part of the status review, that the Service recognize and change the taxonomic nomenclature for the lesser long-nosed bat to be consistent with the most recent classification of this species, *L. yerbabuenae.* However, because we are removing the lesser long-nosed bat from the List (*i.e.,* ''delisting'' the species), this recommendation is moot. Please note that, throughout this rule, we continue to refer to the lesser long-nosed bat as a subspecies.

The recommendation to downlist the species in the 5-year review was made because information generated since the listing of the lesser long-nosed bat indicated that the subspecies was not in imminent danger of extinction throughout all or a significant portion of its range (higher population numbers, increased number of known roosts, reduced impacts from known threats, and improved protection status) and thus, did not meet the definition of endangered. On July 16, 2012, we received a petition from The Pacific Legal Foundation and others requesting that, among other reclassification actions, the Service downlist the lesser long-nosed bat as recommended in the 5-year review. On September 9, 2013, the Service published a 90-day petition finding under the Act stating that the

petition contained substantial scientific or commercial information indicating the petitioned action (*i.e.,* downlisting) for the lesser long-nosed bat may be warranted (78 FR 55046).

On November 28, 2014, the Service received a ''60-day Notice of Intent to Bring Citizen Suit.'' On November 20, 2015, the New Mexico Cattle Growers Association and others filed a complaint challenging the Service's failure to complete the 12-month findings on five species, including the lesser long-nosed bat (*New Mexico Cattle Growers Association, et al.* v. *United States Department of the Interior, et al.,* No. 1:15–cv–01065–PJK–LF (D.N.M)). Plaintiffs asked the Court to compel the Service to make 12-month findings on the five species. The parties settled the lawsuit with the requirement that the Service submit a 12-month finding for the lesser long-nosed bat to the Office of the Federal Register for publication on or before December 30, 2016, among other obligations not related to the lesser long-nosed bat. On January 6, 2017, the Service published in the **Federal Register** a proposed rule (82 FR 1665) and 12-month petition finding and request for comments to remove the lesser long-nosed bat from the Federal List of Endangered and Threatened Wildlife.

Summary of Changes From the Proposed Rule

We have not made any substantive changes in this final rule based on the comments that we received during the public comment period on the January 6, 2017, proposed rule (82 FR 1665). Based on peer review, State, and public comments, we added text and information to clarify some language in the SSA and the proposed rule that has been incorporated into this final rule as discussed below in the Summary of Comments and Recommendations.

Species Information

A thorough review of the taxonomy, life history, ecology, and overall viability of the lesser long-nosed bat is presented in the SSA report for the lesser long-nosed bat (Service 2017), which is available online at *http://www.regulations.gov* in Docket No. FWS–R2–ES–2016–0138 or *https://www.fws.gov/southwest/es/arizona/Lesser.htm,* or in person at the Arizona Ecological Services Field Office (see **ADDRESSES**, above). The SSA report documents the results of the biological status review for the lesser long-nosed bat and provides an account of the subspecies' overall viability through forecasting of the subspecies' condition in the future (Service 2017; entire). In the SSA report, we summarize the relevant biological data and a description of past, present, and likely future stressors to the subspecies, and conduct an analysis of the viability of the subspecies. The SSA report provides the scientific basis that informs our regulatory determination regarding whether this subspecies should be listed as an endangered or a threatened species under the Act. This determination involves the application of standards within the Act, its implementing regulations, and Service policies to the scientific information and analysis in the SSA.

The following discussion is a summary of the results and conclusions from the SSA report. The Service invited a group of experts to provide input as the draft SSA report was being developed. These experts included lesser long-nosed bat biologists, as well as experts in climate change modeling and plant phenology (the scientific study of periodic biological phenomena, such as flowering, in relation to climatic conditions). Following development of the draft SSA, and in compliance with our policy, ''Notice of Interagency Cooperative Policy for Peer Review of Endangered Species Act Activities,'' which was published on July 1, 1994 (59 FR 34270), we solicited peer reviews on the draft SSA report from four objective and independent scientific experts in November 2016 and received responses from two peer reviewers.

The lesser long-nosed bat (*Leptonycteris curasoae yerbabuenae)* is one of three nectar-feeding bats in the United States; the others are the Mexican long-nosed bat (*L. nivalis*) and the Mexican long-tongued bat (*Choeronycteris mexicana*). The lesser long-nosed bat is a migratory pollinator and seed disperser that provides important ecosystem services in arid forest, desert, and grassland systems throughout its range in the United States and Mexico, contributing to healthy soils, diverse vegetation communities, and sustainable economic benefits for communities. The range of the lesser long-nosed bat extends from the southwestern United States southward through Mexico.

Following listing of the lesser long-nosed bat, recovery activities were based on the U.S. recovery plan (Service 1997, entire) and the Program for the Conservation of Migratory Bats in Mexico, which was formed in 1994 (Bats 1995, pp. 1–6). The primary recovery actions outlined in the recovery plan were to monitor and protect known roost sites and foraging habitats. Because the lesser long-nosed bat is a colonial roosting species known to occur at a limited number of roosts across its range in Mexico and the United States (Arizona and New Mexico), impacts at roost locations could have a significant impact on the population, particularly if the impacts occur at maternity roosts. However, because approximately 60 percent (8 out of 14) of the roost locations known at the time of listing were on ''protected'' lands in both the United States and Mexico, the degree of threat from impacts to roost locations was determined in our SSA to be moderate. For example, as stated in the proposed rule, approximately 75 percent of this species in the United States is on federally managed lands where there are guidelines and management plans (Land and Resource Management Plans, Resource Management Plans, Integrated Natural Resource Management Plans, etc.) that include actions and measures that contribute to the protection of lesser long-nosed bats and their habitat.

The Service's 5-year review recommended downlisting from endangered to threatened status (Service 2007; available at *http://www.regulations.gov* in Docket No. FWS–R2–ES–2016–0138 or *https://www.fws.gov/southwest/es/arizona/Lesser.htm*). The 5-year review, indicated that information generated since the listing of the bat indicated that it was not in imminent danger of extinction throughout all or a significant portion of its range and thus, would not meet the definition of endangered. In Mexico, the lesser long-nosed bat was removed from that nation's equivalent of the endangered species list in 2013 (SEMARNAT 2010, entire; Medellin and Knoop 2013, entire). Between 1990 and 2010, Mexican researchers carried out a wide range of studies that demonstrated that the lesser long-nosed bat was no longer in the critical condition that led it to be listed as in danger of extinction in Mexico. Specifically, the evaluation to delist in Mexico showed (1) the distribution of lesser long-nosed bats is extensive within Mexico, covering more than 40 percent of the country; (2) the extent and condition of lesser long-nosed bat habitat is only moderately limiting and this species has demonstrated that it is adaptable to varying environmental conditions; (3) the species does not exhibit any particular characteristics that make it especially vulnerable; and (4) the extent of human impacts is average and increased education, outreach, and research have reduced the occurrence of human impacts and disturbance.

Subspecies Description and Needs

The lesser long-nosed bat is a migratory bat characterized by a resident subpopulation that remains year round in southern Mexico to mate and give birth, and a migratory subpopulation that winters and mates in central and southern Mexico, but that migrates north in the spring to give birth in northern Mexico and the southwestern United States (Arizona). This migratory subpopulation then obtains the necessary resources in Arizona and New Mexico to be able to migrate south in the fall back to central and southern Mexico. The lesser long-nosed bat is a nectar, pollen, and fruit-eating bat that depends on a variety of flowering plants as food resources. These plants include columnar cacti, agaves, and a variety of flowering deciduous trees. The lesser long-nosed bat is a colonial roosting species that roosts in groups ranging from a few hundred to over 100,000. Roost sites are primarily caves, mines, and large crevices with appropriate temperatures and humidity; reduced access to predators; free of disease-causing organisms (fungus that causes white-nose syndrome, etc.); limited human disturbance; structural integrity; in a diversity of locations to provide for maternity, mating, migration, and transition roost sites.

The primary life-history needs of this subspecies include appropriate and adequately distributed roosting sites; adequate forage resources for life-history events such as mating and birthing; and adequate roosting and forage resources in an appropriate configuration (a ''nectar trail'') to complete migration between southern Mexico and northern Mexico and the United States.

For more information on this topic, see chapter 2 of the SSA Report (Service 2017), which is available online at *http://www.regulations.gov* in Docket No. FWS–R2–ES–2016–0138 or *https://www.fws.gov/southwest/es/arizona/Lesser.htm,* or in person at the Arizona Ecological Services Field Office (see **ADDRESSES**, above).

Current Conditions

For the last 20 years, following the completion of the lesser long-nosed bat recovery plan, there has been a steadily increasing effort related to the conservation of this subspecies. In addition, better methods of monitoring have been developed, such as the use of infrared videography and radio telemetry. These monitoring efforts have led to an increase in the number of known roosts throughout its range, from approximately 14 known at the time of listing to approximately 75 currently known roost sites. Additionally, these monitoring efforts have led to more accurate assessments of the numbers of lesser long-nosed bats using these roosts. The 1988 listing rule emphasized low population numbers along with an apparent declining population trend. At the time of listing, 1,000 lesser long-nosed bats were estimated rangewide. Since then, we have documented increased lesser long-nosed bat numbers and positive trends (stable or increasing numbers of bats documented over the past 20 years) at most roosts. The current estimate is now more than 200,000 bats rangewide. While this may, in large part, reflect a better approach to survey and monitoring in subsequent years, it gives us better information upon which to evaluate the status of the lesser long-nosed bat population.

A number of lesser long-nosed bat publications have population estimates that far exceed those known at the time of listing (Fleming et al. 2003; Sidner and Davis 1988). Although population estimates and roost count numbers fluctuate from year to year, the numbers of lesser long-nosed bats estimated from 2010 through 2015 in the three known maternity roosts in the United States were an average of two and a half times higher than those known in the late 1990s (Service 2017; p. 10). Furthermore, protection measures have been implemented at over half the roosts in both the United States and Mexico (approximately 40 roosts), including gating, road closures, fencing, implementation of management plans, public education, monitoring, and enforcement of access limitations. Generally, roosts on Federal lands benefit from monitoring by agency personnel and a law enforcement presence resulting in these roosts being exposed to fewer potential impacts than if the roost occurred on non-federal lands. Efforts to physically protect roosts through the use of gates or barriers have been implemented at six roost sites in Arizona. The experimental fence at one roost (a mine site) worked initially, but was subsequently vandalized resulting in roost abandonment. The fencing was repaired and there have been no subsequent breeches and the bats have recolonized the site (Service 2017; p. 11).

In the summer of 2017, a drastic (*i.e.,* approximately 86 percent) decline was observed in the numbers of bats at one of the key maternity sites along the U.S.-Mexico border. Additionally, a late-summer transition roost in Arizona was documented as not being occupied for the second year in a row. We do not have a complete understanding of what caused the fatality event and roost abandonment in 2017. It is likely that a mortality event at the maternity roost site in 2016 probably contributed to the decline in 2017 and the information we have indicates the observed fatalities were the result of a natural weather event. The decline could also be the result of migrating females using other roosts in the area or resource conditions in Mexico resulted in fewer bats migrating northward. We intend to work with our partners in Mexico and the United States to increase the monitoring effort at this roost. We also intend to gather information on resource conditions in both the United States and Mexico and consider roost counts at other maternity roosts in the region to gain a better understanding of the causes and implications of the events of 2016 and 2017. This maternity roost is included in our draft post-delisting monitoring plan, so we will continue to monitor and evaluate this roost for the next 15 years and implement adaptive management actions, if necessary. We evaluated lesser long-nosed bat resiliency, redundancy, and representation in the SSA over two time frames, 15 years and 50 years. Because the species' viability is evaluated by resiliency, redundancy, and representation under a 15-year time frame, we used the same timeframe in the development of thresholds for post-delisting monitoring. In addition, the 15-year is based on the history of past conservation implementation, such as identifying and monitoring roost sites; completing the processes for identifying, permitting, implementing, and monitoring roost protection measures; conducting education and outreach and seeing changes in public perceptions.

Lesser long-nosed bat roosts have a history of numbers fluctuating from year to year. Any observed incidents of fatalities or changes in roost occupancy patterns should be considered in the context of time. There is not rigorous roost count data that can be used to statistically define the trend of the lesser long-nosed bat population throughout its range. We have count data from both the United States and Mexico that has occurred regularly over the past 20 years, including annual simultaneous counts at both maternity and late-summer transition roosts in the United States. Not all roosts are counted every year, but some are. Not all roosts are counted multiple times each year, but some are. Regardless, each known roost in the United States has some count data that has occurred over the past 20 years that has resulted in regular or

periodic visits by bat biologists or land managers. These counts have shown increasing or stable numbers and roost sites that continue to provide for the life history needs of the lesser long-nose bat. When looking at the count data over time and applying our best professional judgment to this data, we have concluded that the overall lesser long-nosed bat population trend is positive. Our conservation partners in Mexico reached the same conclusion when they delisted the lesser long-nosed bat in 2013.

The lesser long-nosed bat's conservation status in Mexico is secure enough that Mexico removed the subspecies from its endangered species list in 2013 because of the factors described above. The species has a greater distribution in Mexico than in the United States; thus much of the same reasoning for the subspecies' removal from Mexico's endangered species list applies to our reasoning to remove the lesser long-nosed bat from the U.S. List of Endangered and Threatened Wildlife.

Because the lesser long-nosed bat has both resident and migratory subpopulations, all of the necessary habitat elements must be appropriately distributed across the range of this species such that roost sites, forage resources, and migration pathways are in the appropriate locations during the appropriate season. Currently, the distribution of the lesser long-nosed bat extends from southern Mexico into the southwestern United States. In Mexico, the distribution of the lesser long-nosed bat covers approximately 40 percent of the country when considering resident areas, migration pathways, and seasonally-occupied roosts within the range of this subspecies. Within both the United States and Mexico, the current distribution of the lesser long-nosed bat has not generally decreased or changed substantially over the past 20 years from that described in the Recovery Plan. An exception to this is the recent documentation of the lesser long-nosed bat range expanding northward to the Gila River in New Mexico (HEG 2015, entire). However, any given area within the range of the lesser long-nosed bat may be used in an ephemeral manner dictated by the availability of resources that can change on an annual and seasonal basis. Roost switching occurs in response to changing resources and areas that may be used during one year or season may not be used in subsequent years until resources are again adequate to support occupancy of the area. This affects if and how maternity and mating roosts, migration pathways, and transition roosts are all used during any given year or season. However, while the distribution of the lesser long-nosed bat within its range may be fluid, the overall distribution of this species has remained similar over time (Service 2017, chapters 1 through 3).

For more information on this topic, see chapter 5 of the SSA Report (Service 2017), which is available online at *http://www.regulations.gov* in Docket No. FWS–R2–ES–2016–0138 or *https://www.fws.gov/southwest/es/arizona/Lesser.htm,* or in person at the Arizona Ecological Services Field Office (see **ADDRESSES**, above).

Recovery Planning and Recovery Criteria

Section 4(f) of the Act directs us to develop and implement recovery plans for the conservation and survival of endangered and threatened species unless we determine that such a plan will not promote the conservation of the species. Recovery plans identify site-specific management actions that will achieve recovery of the species and objective, measurable criteria that set a trigger for review of the species' status. Methods for monitoring recovery progress may also be included in recovery plans.

Recovery plans are not regulatory documents; instead they are intended to establish goals for long-term conservation of listed species and define criteria that are designed to indicate when the threats facing a species have been removed or reduced to such an extent that the species may no longer need the protections of the Act. They also identify suites of actions that are expected to facilitate achieving this goal of recovery. While recovery plans are not regulatory, they provide guidance regarding what recovery may look like and possible paths to achieve it. However, there are many paths to accomplishing recovery of a species, and recovery may be achieved without all recovery actions being implemented or criteria being fully met. Recovery of a species is a dynamic process requiring adaptive management that may, or may not, fully follow the guidance provided in a recovery plan.

The 1997 lesser long-nosed bat recovery plan objective is to downlist the species to threatened (Service 1997, entire). The recovery plan does not explain why delisting was not considered as the objective for the recovery plan. The existing recovery plan does not explicitly tie the recovery criteria to the five listing factors at section 4(a)(1) of the Act or contain explicit discussion of those five listing factors. The recovery plan lists four criteria that should be considered for downlisting the subspecies, which are summarized below. A detailed review of the recovery criteria for the lesser long-nosed bat is presented in the 5-year Review for the Lesser Long-Nosed Bat (Service 2007; available online at *http://www.regulations.gov* in Docket No. FWS–R2–ES–2016–0138 or at *https://www.fws.gov/southwest/es/arizona/Lesser.htm*).

During our development of the SSA report and 5-year review, we found that data relied upon to develop the 1988 listing rule and the recovery plan are out of date. Subsequent to the completion of the listing rule and recovery plan, considerable additional data regarding the life history and status of the lesser long-nosed bat have been gathered and, as discussed above, have documented an increase in the number of known roost sites and the number of lesser long-nosed bats occupying those roosts. During the 2007 5-year review of the status of this subspecies, it was determined that the 1997 recovery plan was outdated and did not reflect the best available information on the biology of this subspecies and its needs (Service 2007; p. 30; available online at *http://www.regulations.gov* in Docket No. FWS–R2–ES–2016–0138 or at *https://www.fws.gov/southwest/es/arizona/Lesser.htm*). As explained below, we assessed the species' viability in the SSA report (Service 2017) in making the determination of whether or not the lesser long-nosed bat has recovered as defined by the Act.

Recovery Criterion 1 (Monitor Major Roosts for 5 Years)

Significant efforts have been made to implement a regular schedule of monitoring at the known roost sites throughout the range of the species. Approximately six roosts were known in Arizona and New Mexico at the time of listing. Currently, we have documented approximately 50 lesser long-nosed bat roosts in Arizona and New Mexico. All 13 of the roost sites identified in the recovery plan have had some degree of monitoring over the past 20 years. In the United States, all of the six major roosts identified in the recovery plan for monitoring (Copper Mountain, Bluebird, Old Mammon, Patagonia Bat Cave, State of Texas, and Hilltop) have been monitored since 2001. Additionally, we now consider almost all of the approximately 50 known roosts in the United States to be major roosts, meaning they host more than 1,000 bats. None of the New Mexico roosts were identified for monitoring in the recovery plan, but these roosts have been monitored

sporadically since the completion of the recovery plan (Service 2007; pp. 6–9). The seven roost sites in Mexico have been regularly monitored since the development of the recovery plan (Medellín and Torres 2013, pp. 11–13). Therefore, this recovery criterion has been satisfied. For more information, see chapter 2 of the SSA Report (Service 2017).

Recovery Criterion 2 (Roost Numbers Stable or Increasing)

Nearly all of the lesser long-nosed bat experts and researchers who provided input to the 5-year review and SSA indicated that they observed that the number of lesser long-nosed bats at most of the roost sites in both the United States and Mexico is stable or increasing (see chapter 2 of the SSA Report (Service 2017). The lesser long-nosed bat's conservation status in Mexico has been determined to be secure enough that Mexico removed the subspecies from its endangered species list in 2013 based on the factors discussed above. With a documented increase from an estimated 1,000 lesser long-nosed bats rangewide at the time of listing to more than 200,000 currently documented, the total number of bats documented at this time is many times greater than those numbers upon which the listing of this species relied. Therefore, this criterion has been met.

Recovery Criterion 3 (Protect Roost and Forage Plant Habitats)

The lesser long-nosed bat population is fluid and constantly adapts to changing environmental conditions over a large, bi-national range. Lesser long-nosed bat roost sites are discrete and consistent, but the lesser long-nosed bat may use these roost sites in a changing and adaptable manner to take advantage of ephemeral and constantly changing forage resources with both seasonal and annual differences of occurrence. Therefore, observations of occupancy and numbers of bats using these roosts may not be a complete or accurate representation of the status of the subspecies across its range. However, the information regarding the status of the lesser long-nosed bat population is much more accurate and complete than it was as the time of the 1988 listing rule.

More roost locations for lesser long-nosed bats are currently known, and are being more consistently monitored, than at the time of listing in 1988 (an increase from approximately 14 to approximately 75 currently known roosts). As we describe in more detail in Factor D below, we now know that the majority of these roost sites occur on public lands where they are protected and managed.

In related efforts, a number of studies have been completed that provide us with better information related to the forage requirements of the lesser long-nosed bat when compared to the time of listing and recovery plan completion. We now know that lesser long-nosed bats are more adaptable to ephemeral forage resources and we know that effects from livestock grazing, prescribed burning, and harvesting by the tequila industry do not significantly affect lesser long-nosed bat forage resources.

Some progress has been made toward protecting known lesser long-nosed bat roost sites, but the ultimate level of effectiveness of gates as a protection measure is still being evaluated and improved. Gates provide long-term protection of roost sites, but are accepted and used by different bat species to different extents. Different gates designs are currently being tested at additional lesser long-nosed bat roost sites. For more information, see chapter 4 of the SSA Report (Service 2017).

In summary, we have considerably better data with regard to roost locations of lesser long-nosed bat compared to the information available at the time of listing and completion of the recovery plan. Because of improved information, land management agencies are doing a better job of protecting lesser long-nosed bat roost sites and foraging areas. Over the past five years, there has been considerable effort and success in understanding lesser long-nosed bat roost protection options and many roosts have had roost protection measures implemented (Service 2017, p. 56). In addition, monitoring over the past 24 years indicates steady increases in the numbers of lesser long-nosed bats at these roosts due to roost site protections (Service 2017, p. 10). Therefore, we believed this recovery criterion has been met. For more information, see chapter 2 and Conservation Efforts in the SSA Report (Service 2017).

Recovery Criterion 4 (Status of New and Known Threats)

This criterion relates to adequately addressing threats known at the time the 1997 recovery plan was written, as well as any new threats that have been identified subsequent to the completion of the recovery plan. Our current state of knowledge with regard to threats to this subspecies has changed since the development of the recovery plan. Threats to the lesser long-nosed bat from grazing on food plants, the tequila industry, and prescribed fire, identified in the recovery plan, are likely not as severe as once thought. Effects from illegal border activity and the associated enforcement activities are a new and continuing threat to roost sites in the border region. However, the Service and appropriate land managers have an active program of coordination and technical assistance with Customs and Border Protection that are addressing border issues. Potential effects to forage species and their phenology as a result of climate change have been identified, but are characterized by uncertainty and lack of data specifically addressing those issues. Nonetheless, lesser long-nosed bats have shown the ability to adapt to adverse forage conditions and we find that the lesser long-nosed bat is characterized by flexible and adaptive behaviors that will allow it to remain viable under changing climatic conditions.

Some progress has been made toward protecting known lesser long-nosed bat roost sites; while the ultimate level of effectiveness of gates as a protection measure is still being evaluated and improved, they do provide long-term protection of roost sites. Gates are currently being tested at a few additional lesser long-nosed bat roost sites. Roost protection also occurs in the form of regular monitoring, fencing, road closures, and ongoing management as outlined in the land management agencies' planning documents. This recovery criterion has been met. For more information, see chapter 4 of the SSA Report (Service 2017).

Summary of Factors Affecting the Species

Section 4 of the Act and its implementing regulations (50 CFR part 424) set forth the procedures for listing species, reclassifying species, or removing species from listed status. A species is an endangered or threatened species due to one or more of the five factors described in section 4(a)(1) of the Act: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. A species may be reclassified or delisted on the same basis. Consideration of these factors was included in the SSA report in the discussion on ''threats'' or ''risk factors,'' and threats were projected into the future using scenarios to evaluate the current and future viability of the lesser long-nosed bat. The effects of

conservation measures currently in place were also assessed in the SSA report as part of the current condition of the subspecies, and those effects were projected in future scenarios. The evaluation of the five factors as described in the SSA report is summarized below.

The Service reviews the best scientific and commercial information available when conducting a threats analysis. In considering what factors may constitute a threat, we must look beyond the mere exposure of individuals of a species to the factor to determine whether the exposure causes actual impacts to the entire species. The mere identification of factors that could negatively impact a species is not sufficient to compel a finding that a currently listed species should be maintained on the Federal Lists of Endangered and Threatened Wildlife and Plants. We require evidence that these factors are operative threats currently acting on the species to the point that the species meets the definition of endangered or threatened under the Act.

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

The primary concern regarding future viability of this subspecies continues to be roost site disturbance or loss. This is primarily an issue related to human activities and destructive actions at these roost sites. In addition, the colonial roosting behavior of this subspecies, where high percentages of the population can congregate at a limited number of roost sites, increases the likelihood of significant declines or extinction if impacts at roost sites are pervasive However, as discussed above, increased lesser long-nosed bat numbers and positive trends at most roosts have reduced concerns expressed in the 1988 listing rule with regard to low population numbers and an apparent declining population trend. Agencies and conservation partners are implementing protective measures at known roosts and newly discovered roosts Outreach and education efforts have been effective in increasing the understanding of the general public, as well as conservation partners, with regard to the need to prevent disturbance at lesser long-nosed bat roosts while the bats are present (Service 2017, pp. 45–48). As discussed further in Factor D below, we have determined that roost sites have and will be protected to the extent that roost disturbance is no longer a sufficient threat to warrant protection under the Act.

Although most data related to lesser long-nosed bat roost counts and monitoring have not been collected in a way that is statistically rigorous enough to draw statistically-valid conclusions about the trend of the population, in the professional judgment of biologists and others involved in these efforts, the total numbers of bats observed at roost sites across the range of the lesser long-nosed bat are considered stable or increasing at nearly all roost sites being monitored. With a documented increase from an estimated 1,000 lesser long-nosed bats rangewide at the time of listing to more than 200,000 currently estimated, the total number of bats currently being documented is many times greater than those numbers upon which the listing of this species relied, and while this may, in large part, reflect a better approach to survey and monitoring in subsequent years, it gives us better information upon which to evaluate the status of the lesser long-nosed bat population. This documented increase in roosts and of stable or increasing lesser long-nosed bat numbers indicates that threats to habitat have not reduced available habitat components to the point that it is significantly affecting the lesser long-nosed bat status. And, roost site protections will continue into the foreseeable future. Adequate roosts of all types (maternity, mating, transition, and migratory) currently exist and are likely to exist into the foreseeable future (Service 2017; pp. 8–14).

Significant information regarding the relationship of lesser long-nosed bats to their forage resources has been gathered over the past decade. Because lesser long-nosed bats are highly specialized nectar-, pollen-, and fruit-eaters, they have potential to be extremely vulnerable to loss of or impacts to forage species. However, lesser long-nosed bats are also highly effective at locating food resources, and their nomadic nature allows them to adapt to local conditions. For example, the resiliency of lesser long-nosed bats became evident in 2004, when a widespread failure of saguaro and organ pipe bloom occurred. The failure was first noted in Organ Pipe Cactus National Monument, and such a failure had not been noted in the recorded history of the Monument (Billings 2005). The failure extended from Cabeza Prieta National Wildlife Refuge on the west to Tucson on the east, and south into central Sonora, Mexico. The large-scale loss of this lesser long-nosed bat food resource was somewhat offset by the fact that small numbers of both saguaro and organ pipe flowers continued to bloom into August and September. Such a failure would have been expected to result in fewer lesser long-nosed bats using roosts in this area or reduced productivity at these roosts. However, this was not the case. Maternity roost numbers remained as high as or higher than previous years, with some 25,000 adult females counted during 2004 monitoring (Billings 2005). Ultimately, it appears lesser long-nosed bats were able to subsist and raise young in southwestern Arizona in this atypical year. Other observations over the past 20 years, including some years of significantly reduced agave availability, have indicated that the lesser long-nosed bat is more adaptable than previously believed to changing forage resource availability. This adaptability leads us to a determination that forage availability will not significantly affect the viability of the lesser long-nosed bat population.

Additionally, the effects of livestock grazing and prescribed fire on long-nosed bat food sources are also not as significant as originally thought. For example, Widmer (2002) found that livestock were not responsible for all of the utilization of agave flower stalks in their study area. Wildlife such as javelina, white-tailed deer, and small mammals also utilized agave flower stalks as a food resource. The extent of livestock use of agave flower stalks appears to be related to standing biomass and distance from water. Further, Bowers and McLaughlin (2000) found that the proportion of agave flower stalks broken by cattle did not differ significantly between grazed and ungrazed areas. This information indicates that livestock do not have a significant effect on lesser long-nosed bat food sources, over and above the impact of native grazers.

Thomas and Goodson (1992) and Johnson (2001, p. 37) reported 14 percent and 19 percent mortality of agaves following burns. Some agency monitoring has occurred post-fire for both wildfires and prescribed burns. This monitoring indicates that agave mortality in burned areas is generally less than 10 percent (USFS 2015, pp. 82–83; USFS 2013, pp. 10–11). Contributing to this relatively low mortality rate is the fact that most fires burn in a mosaic, where portions of the area do not burn. Impacts of fire on agave as a food source for lesser long-nosed bats may not be a significant concern for the following reasons: Fire-caused mortality of agaves appears to be low; alternative foraging areas typically occur within the foraging distance from lesser long-nosed bat roosts; and most agave concentrations occur on steep, rocky slopes with low fuel loads (Warren 1996). In addition, Johnson

(2001, pp. 35–36) reported that recruitment of new agaves occurred at higher rates in burned plots than in unburned plots, indicating that there may be an increased availability over time of agaves in areas that have burned, if the return rate of fire is greater than 7 years. The effects of agave harvesting are primarily limited to bootleggers, which is likely occurring at the same levels as when the species was listed in 1988; however, this is not considered significant, because it removes a relatively limited number of lesser long-nosed bat forage plants. In addition, increased outreach and education are being provided to tequila producers in an effort to reduce the effects of agave harvesting on lesser long-nosed bats. These producers primarily farm agaves (as opposed to harvesting wild-growing agaves) and are working with our Mexican partners to leave agaves for utilization by nectar-feeding bats.

Sufficient available forage resources are located in appropriate areas, including in proximity to maternity roosts and along the ''nectar trail'' used during migration. The discussion above and the SSA report detail our analysis and determination that forage resources are adequate and that the lesser long-nosed bat is likely to adapt to any changes in forage availability in the future (Service 2017; pp. 15–20).

While not currently a threat affecting the viability of the lesser long-nosed bat population, the potential for migration corridors to be truncated or interrupted is a concern. Significant gaps in the presence of important roosts and forage species along migration routes would affect the population dynamics of this subspecies. While the lesser long-nosed bat continues to be faced with loss and modification of its habitat throughout its range, primarily from urbanization and catastrophic wildfires, the habitats used by this subspecies occur over an extensive range that covers a wide diversity of vegetation and ecological communities. These are habitat characteristics that would not make this subspecies intrinsically vulnerable with regard to habitat limitations. That is to say, the wide variety of ecosystems that this subspecies uses, over a relatively expansive range, results in available areas characterized by the asynchronous flowering of forage resources making up the diet of the lesser long-nosed bat and buffers this subspecies from potential loss or reduction of habitats as a result of stochastic events, including climate change, among others.

Lesser long-nosed bats are affected directly by development that removes important foraging habitat, but also indirectly as growing numbers of people increase the potential for roost disturbance. Impacts from urbanization on lesser long-nosed bat habitat are of concern because they tend to be permanent, long-term impacts, as opposed to the often temporary, shorter-term impacts from fire, grazing, and agave harvesting. Lesser long-nosed bats are often able to react to temporary impacts by moving to alternative sites in the short-term. Various human activities, including recreation and caving, can result in impacts to lesser long-nosed bat roosts. As discussed earlier, various land use plan and laws regulate the access to sensitive sites such as bat roosts. The implementation of these plans is not dependent on the regulatory protections of the Act. Additionally, post-delisting monitoring will provide regular assessments of lesser long-nosed bat roosts and allow us to respond with appropriate management to an indication of disturbance or vandalism. Past and ongoing outreach and education has been effective in raising public awareness related to the conservation of bats. The general public better understands the needs and benefits of bats in the environment. Continued education and understanding will help reduce the occurrence of bat roost disturbance and vandalism. Such efforts have been very effective, particularly in Mexico.

There is no question that current population numbers of lesser long-nosed bats exceed the levels known and recorded at the time of listing in 1988. A number of publications have documented numbers of lesser long-nosed bats throughout its range that far exceed the numbers used in the listing analysis with an estimated increase from fewer than 1,000 bats to approximately 200,000 bats rangewide (Fleming et al. 2003, pp. 64–65; Sidner and Davis 1988, p. 494). Also, in general, the trend in overall numbers of lesser long-nosed bats estimated at roost sites has been stable or increasing in both the United States and Mexico (Medellín and Knoop 2013, p. 13; Service 2017). Increased roost occupancy and the positive trend in numbers of lesser long-nosed bats occupying these roosts appear to be supported by adequate forage resources. The adaptability of the lesser long-nosed bat to changing forage conditions seems to allow the lesser long-nosed bat to sustain a positive population status under current environmental conditions.

While some threats are ongoing with regard to lesser long-nosed bat habitat, in general, we find that threats to this species' habitat have been reduced or are being addressed in such a way that lesser long-nosed bat habitat is being enhanced and protected at a level that has increased since the 1988 listing of this species. In particular, areas that were vulnerable to threats have been protected or are now managed such that those threats have been reduced. Outreach and education have increased the understanding of what needs to be done to protect lesser long-nosed bat habitat.

Beyond the regulatory requirements of the Act, our conservation partners have implemented a number of past and current conservation measures that to benefit the bat (Service 2017, p. 46). The Blue Bird Mine on Cabeza Prieta National Wildlife Refuge was fenced in 2004 to protect a known lesser long-nosed bat maternity roost. Bats reoccupied this abandoned roost following the installation of this protective fencing. After the fence was vandalized and subsequently abandoned by lesser long-nosed bats in 2005, the fence was repaired (McCasland 2005), and there has been no subsequent abandonment of this roost.

Telemetry projects have identified a number of new transition roosts. Roosts on non-Federal lands support efforts to promote the conservation of the lesser long-nosed bat. The Arizona-Sonora Desert Museum has conducted studies on seasonal movements between lesser long-nosed bat roosts in Arizona, a migratory pollinator study, and roost monitoring in the United States and Mexico, and conducts educational activities related to bats (Krebbs 2005a).

Investigations were initiated related to the distribution and use of hummingbird feeders by lesser long-nosed bat in the Tucson area (Wolf 2006). This program has been continued and expanded through a citizen scientist program being coordinated by the Service, Arizona Game and Fish Department (AGFD), the Town of Marana, the University of Arizona, and a system of volunteer citizen scientists now number over 100. Information on arrival and departure dates, peak use periods, and population characteristics are being gathered to increase our understanding of lesser long-nosed bat life history.

A mine site on the Tohono O'odham Nation that supports a lesser long-nosed bat maternity colony has been structurally stabilized to maintain roost integrity (Wolf and Dalton 2005). The exhaust fan was removed from the historical Colossal Cave maternity roost in an effort to get lesser long-nosed bat to recolonize this roost; however, so far, no lesser long-nosed bats have

recolonized this cave (AGFD 2005, entire). More recently, in 2015, a gate blocking the entrance to the bat roost at Colossal Cave has been replaced by a more bat-friendly gate.

Educational programs occur at organized events such as Southwest Wings Birding Festival. Other programs are conducted as requested, but efforts are sporadic (AGFD 2005). In Mexico, bat biologists are working with elementary schools, providing ''bat-pollination'' and other games for school children who previously had known little about and had little concern for bats. This educational effort has been successful in passing along this information to siblings and teachers are sharing the program (Medellín 2011; p. 9).

The Service and other agencies and partner organizations are raising the awareness of pollinators in general, and bat pollinators specifically, through education and outreach efforts that include events across the United States and in Mexico.

Therefore, based on the analysis completed in the SSA report (Service 2017; pp. 54–61), we have determined that threats to the habitat of this species are currently reduced and will continue to be addressed in the foreseeable future, or are not as significant as previously thought.

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

Lesser long-nosed bats are not known to be taken for commercial purposes, and scientific collecting is not known to be a problem (Service 1988, p. 38459). Caves and mines continue to attract recreational users interested in exploring these features, but this threat has probably not increased since the listing. For example, Pima County, in southeastern Arizona, is implementing mine closures on lands that they have acquired for conservation purposes. Other land management agencies also carry out abandoned mine closures for public recreational safety purposes. A positive aspect of these mine closure processes is that most agencies and landowners now understand the value of these features to bats and other wildlife and are implementing measures to maintain those values while still addressing public health and safety concerns. The 1988 listing rule stated that bats were often killed by vandals (Service 1988, p. 38459). However, significant changes in the public perception of bats are occurring. Educational efforts are making a difference, as evidenced by decreased vandalism at roost sites, measures being including in land use planning, reduced non-target fatalities during rabies control, and public interest and ownership in bat conservation efforts such as the hummingbird feeder monitoring project.

In both the United States and Mexico, public education, in the form of radio and television spots, and educational materials have been implemented. Agencies now receive calls for assistance in nonlethal solutions to bat issues. Often, the general public may be concerned about rabies or vampire bats, but outreach and education are improving the understanding and knowledge of bats concerning these issues. Vampire bat control is implemented in portions of the lesser long-nosed bat range in Mexico. This control is necessary because of potential impacts to humans and livestock, including the transmission of rabies. Such control can result in the indiscriminate killing of non-target bats, including lesser long-nosed bats (Johnson et al. 2014; p. 1920–1922). Because of the colonial roosting nature of lesser long-nosed bats, any roost lost or disturbed because of rabies control activities can affect the lesser long-nosed bat population. Mexico has focused efforts to reduce the mortality of non-target species in relation to vampire bat control (see chapter 4 of the SSA Report (Service 2017).

In summary, we determine that the viability of the lesser long-nosed bat is not being significantly affected by threats from scientific research or public recreational activities.

Factor C. Disease or Predation

Disease does not currently appear to be a significant risk factor for the lesser long-nosed bat. Emerging disease issues, such as those associated with white-nose syndrome, may become more significant; however our current scientific assessment indicates that white-nose syndrome will not affect this non-hibernating species. Therefore, because lesser long-nosed bats do not hibernate, we do not anticipate that white-nose syndrome will be a significant risk factor for lesser long-nosed bats (see chapter 4 of the SSA Report (Service 2017).

Predation contributes to the mortality of lesser long-nosed bats at roost sites. Likely predators include snakes, raccoons, skunks, ringtails, bobcats, coyotes, barn owls, great-horned owls, and screech owls. Specifically, barn owls have been observed preying on lesser long-nosed bats at the maternity roost at Organ Pipe Cactus National Monument for many years (Billings 2005; p. 11) and snakes have been observed preying on lesser long-nosed bats in Baja California Sur, Mexico (Frick 2017, pers. comm.). However, it is our professional judgement that at large aggregations, such as bat roosts, predation is an insignificant impact on the population. Therefore, we find that neither disease nor predation are currently or is likely in the future to affect the viability of the lesser long-nosed bat.

Factor D. The Inadequacy of Existing Regulatory Mechanisms

The current listing of the lesser long-nosed bat in the United States and the former listing of the bat in Mexico as an endangered species have provided this species with some level of protection. Outside of laws generally protecting wildlife and their habitats, no specific laws or regulations protect this species in Mexico. As noted in Factor B above, rabies control activities have resulted in the mortality of the lesser long-nosed bats due to the lack of requirements to properly identify the target species. However, increased education and outreach is improving this situation in Mexico, and incidents of nontarget fatalities during rabies control have been reduced. In the United States, State laws and regulations provide some additional level of protection. For example, Arizona State Law in Arizona Revised Statute (ARS) Title 17 prohibits the taking of bats outside of a prescribed hunting season and, per Commission Order 14, there is no open hunting season on bats, meaning it is always illegal to take them. Provisions for special licenses to take bats and other restricted live wildlife are found in Arizona Game and Fish Commission Rule 12, Article 4 and are administered by the AGFD. However, this protection is for individual animals only, and does not apply to the loss or destruction of habitat. However, the loss and destruction of habitat has been and will be managed and adequate areas of suitable habitat remain undeveloped such that this lack of protection of habitat under State law does not result in a threat to the lesser long-nosed bat population.

More than 75 percent of the range of this species in the United States is on federally managed lands and these federal agencies have guidelines and requirements in place to protect lesser long-nosed bats and their habitats, particularly roost sites. As described above, roosts on Federal lands benefit from monitoring by agency personnel and a law enforcement presence resulting in these roosts being exposed to fewer potential impacts than if the roosts occurred elsewhere. Gating of

roosts on Federal lands is being implemented and evaluated. If the lesser long-nosed bat is delisted, protection of their roost sites and forage resources will continue on Federal lands because agency land-use plans and general management plans contain objectives to protect cave resources and restrict access to abandoned mines, both of which can be enforced by law enforcement officers. In addition, guidelines in these plans for grazing, recreation, off-road use, fire, etc., will continue to prevent or minimize impacts to lesser long-nosed bat forage resources. The Coronado National Forest's 2017 Land and Resource Management Plan (LRMP) includes standards and guidelines to retain and enhance areas with paniculate agaves in order to benefit the lesser long-nosed bat. The Cabeza Prieta National Wildlife Refuge Comprehensive Conservation Plan has identified an objective to install additional measures to protect the lesser long-nosed bat maternity roost on the refuge. The Bureau of Land Management has forage plant protections within the range of the lesser long-nosed bat, including avoidance measures to protect agave and saguaros. Organ Pipe Cactus National Monument and Cabeza Prieta National Wildlife Refuge protect hundreds of square miles of areas containing foraging plants for the bat within its refuge boundaries. We are currently working with the Department of Defense facilities at Fort Huachuca and Barry M. Goldwater Range to include actions in their Integrated Natural Resources Management Plans to continue with lesser long-nosed bat conservation activities. On Fort Huachuca, for example, they are implementing an Agave Management Plan that states that they will maintain a self-sustaining populations of *Agave palmeri* on Fort Huachuca to conserve the forage base of the lesser long-nosed bat and other species using agave.

As described above, roosts on Federal lands benefit from monitoring by agency personnel, or access is granted for monitoring by other entities, and a law enforcement presence resulting in these roosts being exposed to fewer potential impacts than they otherwise would be. Gating of roosts on Federal lands is being implemented and evaluated and, while the best design for such gates is still being developed, these gates do provide long-term protection of the sites. Further, outreach and education, particularly with regard to pollinator conservation, has increased and human attitudes regarding bats are more positive now than in the past; and the lesser long-nosed bat has demonstrated adaptability to potential adverse environmental conditions, such as changes in plant flowering phenology (see discussion under *Factor E,* below).

The Federal Cave Protection Act of 1988 prohibits persons from activities that ''destroy, disturb, deface, mar, alter, remove, or harm any significant cave or alters free movement of any animal or plant life into or out of any significant cave located on Federal lands, or enters a significant cave with the intent of committing any act described . . .'' Arizona statute (ARS 13–3702) makes it a class 2 misdemeanor to ''deface or damage petroglyphs, pictographs, caves, or caverns.'' Activities covered under ARS 13–3702 include ''kill, harm, or disturb plant or animal life found in any cave or cavern, except for safety reasons.'' The above laws and regulations will continue to protect lesser long-nosed bats and their habitats after delisting.

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

Ecosystems within the southwestern United States are thought to be particularly susceptible to climate change and variability (Strittholt et al. 2012, pp. 104–152; Munson et al. 2012, pp. 1–2; Archer and Predick 2008). Documented trends and model projections most often show changes in two variables: Temperature and precipitation. Recent warming in the southwest is among the most rapid in the nation, significantly more than the global average in some areas (Garfin et al. 2014, p. 463; Strittholt et al. 2012, pp. 104–152; Munson et al. 2012, pp. 1–2; Guido et al. 2009). Precipitation predictions have a larger degree of uncertainty than predictions for temperature, especially in the Southwest (Sheppard et al. 2002), but indicate reduced winter precipitation with more intense precipitation events (Global Climate Change 2009, pp. 129–134; Archer and Predick 2008, p. 24). Further, some models predict dramatic changes in Southwestern vegetation communities as a result of climate change (Garfin et al. 2014, p. 468; Munson et al. 2012, pp. 9–12; Archer and Predick 2008, p. 24). In the most recent assessment of climate change impacts by the Intergovernmental Panel on Climate Change (IPCC), the IPCC indicated that there would be a decrease in the number of cold days and nights and an increase in the number of warm days and warm nights (IPCC 2014, p. 53). This may would favor frost-intolerant lesser long-nosed bat forage species like saguaro and organ pipe cacti, but may also affect the blooming phenology of those same species. They also indicted that precipitation events would likely become more intense and that we are more likely to see climate-related extremes such as heat waves, droughts, floods, wildfires, etc. (IPCC 2014, p. 53).

The U.S. Geological Survey (USGS) produced a mapping tool that allows climate change projections to be downscaled to local areas including states, counties, and watershed units. We used this National Climate Change Viewer (USGS 2016) to compare past and projected future climate conditions for Pima, Santa Cruz, and Cochise counties, Arizona. The baseline for comparison was the observed mean values from 1950 through 2005, and 30 climate models were used to project future conditions for 2050 through 2074. We selected the climate parameters of April maximum temperature and August and December mean precipitation to evaluate potential effects on lesser long-nosed bat forage resources. These particular parameters were selected from those available because they represented those most likely to impact the survival and flowering phenology of individual forage species.

Similar to the more general climate change effects discussed above, the downscaled analysis also showed warming spring temperatures, which could result in an early blooming period for lesser long-nosed bat forage species (USGS 2016). Precipitation changes were evaluated for changes to monsoon and winter precipitation. In line with the general climate projections, changes during the evaluated time periods were greater for winter precipitation than for monsoon precipitation. Changes projected for monsoon precipitation were minimal, but projected to be reduced by approximately one inch per 100 days for winter precipitation (USGS 2016).

The best available information indicates that ongoing climate change will probably have some effect on lesser long-nosed bat forage resources. Such effects will occur as a result of changes in the phenology (periodic biological phenomena, such as flowering, in relation to climatic conditions) and distribution of lesser long-nosed bat's forage resources. How this affects the viability of the lesser long-nosed bat population is not clear. There is much uncertainty and a lack of information regarding the effects of climate change and specific impacts to forage for this subspecies. The biggest effect to the lesser long-nosed bat will occur if forage availability gets out of sync along the

''nectar trail'' such that bats arrive at the portion of the range they need to meet life-history requirements (migration, mating, birthing) and there are inadequate forage resources to support that activity. If the timing of forage availability changes, but changes consistently in a way that maintains the nectar trail, this subspecies is expected to adapt to those timing changes as stated above (see chapter 4 of the SSA Report (Service 2017). For example, as noted earlier, the resiliency of lesser long-nosed bats became evident in 2004, when a widespread failure of saguaro and organ pipe bloom occurred and lesser long-nosed bats were still, ultimately, able to subsist and raise young in southwestern Arizona in this atypical year. It is likely they did so by feeding more heavily on agaves (evident by agave pollen found on captured lesser long-nosed bats) than they typically do (see additional discussion under Factor A above). Although we are still not sure to what extent the environmental conductions described in climate change predictions will affect lesser long-nosed bat forage resource distribution and phenology, we have documented that lesser long-nosed bats have the ability to change their foraging patterns and food sources in response to a unique situation (Billings 2005; pp. 3–4), providing evidence that this species is more resourceful and resilient than may have been previously thought. We find that the lesser long-nosed bat is characterized by flexible and adaptive behaviors that will allow it to remain viable under changing climatic conditions.

Species Future Conditions and Viability

We evaluated overall viability of the lesser long-nosed bat in the SSA report (Service 2017) in the context of resiliency, redundancy, and representation. Species viability, or the ability to survive long term, is related to the species' ability to withstand catastrophic population and species-level events (redundancy); the ability to adapt to changing environmental conditions (representation); and the ability to withstand disturbances of varying magnitude and duration (resiliency). The viability of this species is also dependent on the likelihood of new threats or risk factors or the continuation of existing threats now and in the future that act to reduce a species' redundancy, resiliency, and representation.

As described in the SSA report, we evaluated the viability of the lesser long-nosed bat population at two timeframes, 15 years and 50 years. The 15-year timeframe represents the time it generally takes to document the effectiveness of various research, monitoring, and management approaches that have been or are implemented related to lesser long-nosed bat conservation. Therefore, the 15-year timeframe is a reasonable period of time within which we can predict outcomes of these activities in relation to the viability of the lesser long-nosed bat population. The 50-year timeframe is related primarily to the ability of various climate change models to reasonably and consistently predict or assess likely affects to lesser long-nosed bats and their forage resources. For each of these timeframes, we evaluated three future scenarios, a best-case scenario, a moderate-case scenario, and a worst-case scenario with respect to the extent and degree to which threats will affect the future viability of the lesser long-nosed bat population. We also determined how likely it would be that each of these three scenarios would actually occur. The SSA report details these scenarios and our analysis of the effects of these scenarios, over the two timeframes, on redundancy, resiliency, and representation of the lesser long-nosed bat population.

During our decision-making process, we evaluated our level of comfort making predictions at each of the two timeframes. Ultimately, while the SSA report evaluates both timeframes, the decision-makers could not reasonably rely on predictions of the future viability of the lesser long-nosed bat out to 50 years due to the uncertainty of climate change models and the difficulty of predicting what will happen in Mexico where the majority of this species' habitat occurs, but where we have less information with regard to the threats affecting the lesser long-nosed bats. In the SSA report, all three scenarios were evaluated over both time frames (Service 2017, pp. 52–56). The evaluation results of future viability in the SSA report were identical for both timeframes (high viability), except in the worst-case scenario where, unlike the moderate- and best-case scenarios, the viability was moderate for the 15-year timeframe and low for the 50-year timeframe. For each future scenario, we describe how confident we are that that particular scenario will occur. This confidence is based on the following confidence categories: Highly likely (greater than 90 percent sure of the scenario occurring); moderately likely (70 to 90 percent sure); somewhat likely (50 to 70 percent sure); moderately unlikely (30 to 50 percent sure); unlikely (10 to 30 percent sure); and highly unlikely (less than 10 percent sure).

The SSA report concluded that it is unlikely that the worst-case scenario will actually occur. The worst case scenario describes a drastic increase in negative public attitudes towards bats and lesser long-nosed bat conservation, a greater influence from white-nose syndrome, and the worst possible effects from climate change. Based on our experience and the past and ongoing actions of the public and the commitment of management agencies in their land-use planning documents to address lesser long-nosed bat conservation issues, both now and in the future in both the United States and Mexico, such drastic impacts are unlikely to occur (10 to 30 percent sure this scenario will occur). In fact, for the conditions outlined in the worst-case scenario, we find that certainty of the worst-case scenario occurring is closer to 10 percent than to 30 percent sure that this scenario would actually occur based on the commitment to conservation of this species and the adaptability of the lesser long-nosed bat.

Subsequent to the publication of the proposed delisting rule for the lesser long-nosed bat (82 FR 1665, January 6, 2017), we have been in communication with our public and agency conservation partners to determine the extent of their participation in the post-delisting monitoring of the lesser long-nosed bat. Conservation partners will continue to implement management plans, such as the Forest Service's LRMPs, Bureau of Land Management's Resource Management Plans, Department of Defense's Integrated Natural Resources Management Plan that will result in continued coordination and implementation of existing and future conservation actions related to the lesser long-nosed bat as appropriate and as resources are available. Such ongoing commitment to lesser long-nosed bat conservation has already been seen subsequent to the delisting of this bat in Mexico and our experience has been that it will also continue in the United States after delisting.

Our SSA evaluated the current status of the population in relation to the population's resiliency, redundancy, and representation (Service 2017; pp. 3–4). Resiliency addresses the population's health and ability to withstand stochastic events (numbers of individuals and population trajectory). Redundancy addresses the population's ability to withstand catastrophic events (number and distribution of population segments). Representation addresses diversity within the population (genetic

and habitat variation). We also evaluated future scenarios to assess the future viability of the populations in the foreseeable future. Although the worst-case scenario was evaluated in the SSA report, because we found that it was unlikely to actually occur, the focus of our consideration was on the scenarios that had the greatest likelihood of occurring, the best- and moderate-case scenarios, where redundancy, resiliency, and representation remain high regardless of the timeframe or scenario considered. Under the current condition for the lesser long-nosed bat, as well as in both the best-case (somewhat likely to occur) and moderate-case (moderately likely to occur) future scenarios, redundancy, resiliency, and representation of the lesser long-nosed bat population remain high and the viability of the subspecies is maintained (Service 2017, pp. 64–66). Current and future viability is based on the following findings of the high resiliency, redundancy, and representation. Multiple occupied roost sites occur within both the resident and migratory segments of the population. The numbers of bats at these roost sites have been characterized as stable or increasing. Lesser long-nosed bat numbers have been documented as increasing from approximately 1,000 rangewide at the time of listing to approximately 200,000 currently. This includes stable and increasing numbers of bats at all roost types—maternity, late-summer transition, and mating roosts. Redundancy is high because there are multiple roost sites of each type of roost in both the migratory and non-migratory segments of the population. Lesser long-nosed bats have shown the ability to move among roost sites based on ephemeral forage availability allowing the bats to adapt to the ever-changing availability of forage resources. Ramirez (2011, entire) investigated population structure of the lesser long-nosed bat through DNA sampling and analysis and reported that combined results indicated sampled individuals belong to single population including both the United States and Mexico. Consequently, individuals found in the northern migratory range (United States) and in Mexico should be managed as a single population. Because the lesser long-nosed bats in both the United States and Mexico are considered a single population, there is little overall genetic variation. However, because of the large range and migratory nature of this species, the lesser long-nosed bat occupies a tremendous variety of vegetation communities and habitat types. This overall high diversity of habitat provides high representation across the range (see chapter 5 of the SSA Report (Service 2017).

The future viability of this subspecies is dependent on a number of factors. First, an adequate number of roosts in the appropriate locations is needed. As detailed in the SSA report, adequate roosts of all types (maternity, mating, transition, and migratory) currently exist and are likely to exist into the foreseeable future (Service 2017; pp. 8–14). Second, sufficient available forage resources are located in appropriate areas, including in proximity to maternity roosts and along the ''nectar trail'' used during migration. The discussion above and the SSA report detail our analysis and determination that forage resources are adequate and that the lesser long-nosed bat is likely to adapt to any changes in forage availability in the future (Service 2017; pp. 15–20). In addition, the SSA report analyses the contribution of current and future management of threats to the subspecies' long-term viability. The future viability of the lesser long-nosed bat will also depend on continued positive human attitudes towards the conservation of bats, implementation of conservation actions protecting roost sites and forage and migration resources, and implementation of needed research and monitoring to inform adaptive management as discussed above and in our SSA report.

Determination

Section 4 of the Act and its implementing regulations, 50 CFR part 424, set forth the procedures for listing, reclassifying, or removing species from the Federal Lists of Endangered and Threatened Wildlife and Plants. ''Species'' is defined by the Act as including any species or subspecies of fish or wildlife or plants, and any distinct vertebrate population segment of fish or wildlife that interbreeds when mature (16 U.S.C. 1532(16)). Once the ''species'' is determined, we then evaluate whether that species may be endangered or threatened because of one or more of the five factors described in section 4(a)(1) of the Act. We must consider these same five factors in reclassifying or delisting a 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 analysis of threats must include an evaluation of both the threats currently facing the species and the threats that are reasonably likely to affect the species in the foreseeable future. We may delist a species according to 50 CFR 424.11(d) if the best available scientific and commercial data indicate that the species is neither endangered or threatened for the following reasons: (1) The species is extinct; (2) the species has recovered and is no longer endangered or threatened; and/or (3) the original scientific data used at the time the species was classified were in error.

Lesser Long-Nosed Bat Determination of Status Throughout All of its Range

The total numbers of lesser long-nosed bats across its range are stable or increasing at nearly all roost sites being monitored based on the professional judgment of biologists and others involved in these efforts. While we acknowledge that the data we have does not allow us to draw statistically defensible population trend conclusions, the total number of bats currently documented is many times greater than the total number of bats documented at the time of listing in 1988. At the time of listing, fewer than 500 lesser long-nosed bats were estimated to remain in the United States; current estimates are greater than 100,000 bats. At the time of listing, the estimated rangewide population was fewer than 1,000 lesser long-nosed bats. Current range-wide estimates are approximately 200,000 lesser long-nosed bats. While this may, in large part, reflect a better approach to survey and monitoring in subsequent years, it changes our view of the danger of extinction of the species and gives us better information upon which to evaluate the status of the lesser long-nosed bat population.

This better information is related to the species' population size, the number of roosts, and its distribution. In addition, there have been increased efforts related to habitat protection (identification of roost sites and forage resources in planning efforts, implementation of protective measures for roosts and forage resources, increased awareness of habitat needs, etc.) and additional efforts for habitat protection are planned to be implemented in the future, regardless of the listing status of this subspecies. Threats identified at the time of listing are not as significant as thought or have been addressed to such an extent that they no longer threaten the lesser long-nosed bat population, now or in the future. For example, effects to agaves, a key lesser long-nosed bat forage resource, from prescribed burning and livestock grazing is not a significant impact to lesser long-nosed bat forage

availability (FWS 2016; p. 33–35). Vandalism and human disturbance has been reduced at roost sites due to actions implemented by land management and border management agencies, including the use of fencing and gates and land use planning (FWS 2016; pp. 28–32). Forage resource impacts from agave harvesting for tequila production and non-target impacts to lesser long-nosed bats from vampire bat control in Mexico have both been reduced due to ongoing outreach and education (FWS 2016, p. 32 and 38). Public support for bats has increased with ongoing education and outreach and this has resulted in the public being more supportive of actions taken to reduce threats to bats including the protection of roosts and forage resources (FWS 2016; pp. 45–46). This increased level of information related to population, roosts, and distribution, along with ongoing conservation efforts, combined with the current state of its threats, allow us to conclude that the subspecies is not in danger of extinction and is not expected to become endangered in the foreseeable future. Our thorough evaluation of the available data for occupancy, distribution, and threat factors, as well as the opinions of experts familiar with this subspecies, indicates a currently viable population status with a stable to increasing trend.

In the case of the lesser long-nosed bat, we have determined that, while the above threats may be affecting individuals or specific sites or areas within the range of the lesser long-nosed bat, they do not represent significant threats to the overall population of the lesser long-nosed bat. Therefore, after assessing the best available information, we conclude that the lesser-long nosed bat has recovered and no longer meets the definition of endangered or threatened under the Act. We conclude that the lesser long-nosed bat is not in danger of extinction throughout all of its range and we also find that the lesser long-nosed bat is not likely to be in danger of extinction throughout all of its range in the foreseeable future.

Lesser Long-Nosed Bat Determination of Status in Significant Portion of its Range

On July 1, 2014, we published a final policy interpreting the phrase ''significant portion of its range'' (SPR) (79 FR 37578) (SPR Policy). Aspects of that policy were vacated for species that occur in Arizona by the United States District Court for the District of Arizona. *Center for Biological Diversity* v. *Jewell,* No. CV–14–02506–TUC–RM (D. AZ. Mar. 29, 2017). Because this species occurs in Arizona, we are not relying on the portions of the SPR policy that were vacated by the court in this decision. Pursuant to the Act, a species may warrant listing if it is in danger of extinction or likely to become so throughout all or a significant portion of its range. We interpret the phrase ''significant portion of its range'' in the Act's definitions of ''endangered species'' and ''threatened species'' to provide an independent basis for listing a species in its entirety; thus there are two situations (or factual bases) under which a species would qualify for listing: A species may be in danger of extinction or likely to become so in the foreseeable future *throughout all of its range; or* a species may be in danger of extinction or likely to become so *throughout a significant portion of its range.* If a species is in danger of extinction throughout a significant portion of its range, the species, is an ''endangered species.'' The same analysis applies to ''threatened species.'' Having determined that the lesser long-nosed bat is not endangered or threatened throughout all of its range, we next consider whether there are any significant portions of its range in which the lesser long-nosed bat is in danger of extinction or likely to become so.

The procedure for analyzing whether any portion is a SPR is similar, regardless of the type of status determination we are making. When we conduct a SPR analysis, we first identify any portions of the species' range that warrant further consideration. The range of a species can theoretically be divided into portions in an infinite number of ways. However, there is no purpose in analyzing portions of the range that have no reasonable potential to be significant or in analyzing portions of the range in which there is no reasonable potential for the species to be endangered or threatened. To identify only those portions that warrant further consideration, we determine whether substantial information indicates that: (1) The portions may be ''significant''; and (2) the species may be in danger of extinction there or likely to become so within the foreseeable future. Depending on the biology of the species, its range, and the threats it faces, it might be more efficient for us to address the significance question first or the status question first. Thus, if we determine that a portion of the range is not ''significant,'' we do not need to determine whether the species is endangered or threatened there; if we determine that the species is not endangered or threatened in a portion of its range, we do not need to determine if that portion is ''significant.'' In practice, a key part of the determination that a species is in danger of extinction in a significant portion of its range is whether the threats are geographically concentrated in some way. If the threats to the species are affecting it uniformly throughout its range, no portion is likely to have a greater risk of extinction, and thus would not warrant further consideration. Moreover, if any concentration of threats apply only to portions of the range that clearly do not meet the biologically based definition of ''significant'' (*i.e.,* the loss of that portion clearly would not be expected to increase the vulnerability to extinction of the entire species), those portions would not warrant further consideration.

We identified portions of the lesser long-nosed bat's range that may be significant, and examined whether any threats are geographically concentrated in some way that would indicate that those portions of the range may be in danger of extinction, or likely to become so in the foreseeable future. Within the current range of the lesser long-nosed bat, some distinctions can be made between Mexico and the United States, such as the presence of an international border with associated differences in laws and culture, areas of different vegetation communities, areas of different management approaches, etc. However, we have not found that any of these geographic distinctions are characterized as areas where threats are concentrated. Therefore, our analysis indicates that the species is unlikely to be in danger of extinction or to become so in the foreseeable future in any geographic region within the range of the lesser long-nosed bat. The primary driver of the status of the species continues to be roost site disturbance or loss. This and other factors affecting the viability of the lesser long-nosed bat population as discussed above occur throughout the range of the bat. We have found no areas where the threats are concentrated in any geographic region. Therefore, we have not identified any portion of the range that warrants further consideration to determine whether they are a significant portion of its range.

We also evaluated representation across the lesser long-nosed bat's range to determine if certain areas were in danger of extinction, or likely to become so, due to isolation from the larger range. Ramirez (2011, entire) investigated population structure of the lesser long-nosed bat through DNA sampling and analysis and reported that combined results indicated sampled individuals belong to single population including both the United States and Mexico. Consequently, individuals

found in the northern migratory range (United States) and in Mexico should be managed as a single population. Additionally, the species' population has increased from an estimated 1,000 lesser long-nosed bats rangewide at the time of listing to over 200,000 currently.

Our analysis indicates that there is no geographic portion of the range that is in danger of extinction or likely to become so in the foreseeable future. Therefore, based on the best scientific and commercial data available, no portion warrants further consideration to determine whether the species may be endangered or threatened in a significant portion of its range.

We have determined that none of the existing or potential threats cause the lesser long-nosed bat to be in danger of extinction throughout all or a significant portion of its range, nor is the subspecies likely to become endangered within the foreseeable future throughout all or a significant portion of its range. We may delist a species according to 50 CFR 424.11(d) if the best available scientific and commercial data indicate that: (1) The species is extinct; (2) the species has recovered and is no longer endangered or threatened; or (3) the original scientific data used at the time the species was classified were in error. On the basis of our evaluation, we conclude that, due to recovery, the lesser long-nosed bat is not an endangered or threatened species. We therefore remove the lesser long-nosed bat from the Federal List of Endangered and Threatened Wildlife at 50 CFR 17.11(h).

Effects of the Rule

This final rule revises 50 CFR 17.11(h) by removing the lesser long-nosed bat from the Federal List of Endangered and Threatened Wildlife. The prohibitions and conservation measures provided by the Act, particularly through sections 7 and 9, no longer apply to this subspecies. Federal agencies are no longer required to consult with the Service under section 7 of the Act in the event that activities they authorize, fund, or carry out may affect the lesser long-nosed bat. Because no critical habitat was ever designated for the lesser long-nosed bat, this rule would not affect 50 CFR 17.95. State laws related to the lesser long-nosed bat will remain in place. State and Federal laws related to protection of habitat for the lesser long-nosed bat, such as those addressing effects to caves and abandoned mines, as well as protected plant species such as columnar cacti and agaves, will remain in place.

Future Conservation Measures

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

To fulfill the post-delisting monitoring requirement, we developed a draft post-delisting monitoring plan for the lesser long-nosed bat in coordination with the State wildlife agencies from Arizona and New Mexico. We will be publishing a notice of the availability of the draft post-delisting monitoring plan for comment shortly. We will continue to coordinate with other Federal agencies, State resource agencies, interested scientific organizations, and others as appropriate to implement an effective post-delisting monitoring plan for the lesser long-nosed bat.

Summary of Comments and Recommendations

In the proposed rule published on January 6, 2017 (82 FR 1665) in the **Federal Register**, we requested that all interested parties submit written comments on the proposal by March 7, 2017. We also contacted appropriate Federal and State agencies, Tribal entities, scientific experts and organizations, and other interested parties and invited them to comment on the proposal. We did not receive any requests for a public hearing.

State and Peer Review Comments

Section 4(b)(5)(A)(ii) of the Act states that the Secretary must give actual notice of a proposed regulation under section 4(a) to the State agency in each state in which the species is believed to occur, and invite the comments of such agency. Section 4(i) of the Act directs that the Secretary will submit to the State agency a written justification for his or her failure to adopt regulations consistent with the agency's comments or petition. The Service submitted the proposed regulation to both the AGFD and the New Mexico Department of Game and Fish (NMGFD). We received comments supporting the proposed rule from both agencies.

In accordance with our peer review policy, which was published July 1, 1994 (59 FR 34270), we solicited expert opinion on the SS) from which the proposed delisting rule was developed. Specifically, we solicited peer review from six knowledgeable, independent individuals with scientific expertise and background related to bats in general and to lesser long-nosed bats specifically. We received responses from two of the invited peer reviewers. Editorial and clarifying comments, as well as additional data and supporting citations, have been incorporated into this final delisting rule and the SSA.

We reviewed all comments received from the peer reviewers and the State agencies for substantive issues and new information regarding the delisting of the lesser long-nosed bat. These comments are addressed below.

Comment (1): Both the NMGFD and the AGFD are supportive of the proposed rule and indicated that both the proposed rule and the Service's SSA provide sufficient justification for the removal of the lesser long-nosed bat from the List of Endangered and Threatened Wildlife. The AGFD reiterated supporting data and stated that they ''look forward to our continued collaboration in developing an adequate post-delisting monitoring plan and implementing those techniques that ensure the status of the lesser long-nosed bat continues to improve once removed from the regulatory protections of the Endangered Species Act.'' The NMGFD provided clarifying information and suggestions, which have been incorporated in the SSA and the final delisting rule.

Our Response: We appreciate the NMGFD and the AGFD's support and continued commitment to the conservation of the lesser long-nosed bat. We also look forward to working with both of these State agencies on post-delisting monitoring and adaptive management, if necessary, of the lesser long-nosed bat.

Comment (2): The AGFD commented on the issue of substantially reduced numbers at a major lesser long-nosed bat maternity roost in 2017 and what that might mean for our proposed delisting of this species.

Our Response: As described above, the largest known maternity roost for the lesser long-nosed bat experienced an 86 percent decline between 2016 and 2017. We do not have a complete understanding of what caused the fatality event in 2017 and what that ultimately means for the lesser long-nosed bat population. The decline was likely due to mortality, but it could be

the result of migrating females using other roosts in the area or resource conditions in Mexico resulted in fewer bats migrating northward. We do not know if this decline represents a permanent loss of these bats. We will work with our partners in Mexico and the United States to increase the monitoring effort at this roost, as well as consider roost counts at other maternity roosts in the region, and gather information on resource conditions in both the United States and Mexico. This will provide information needed to better understand what the causes and implications of the events of 2016 and 2017 are and what, if any, ramifications this has on the viability of the lesser long-nosed bat population. This roost is included in our draft post-delisting monitoring plan, so we will continue to monitor and evaluate this roost for the next 15 years and implement adaptive management actions as appropriate.

Despite this decline, significantly more lesser long-nosed bats remain than when we listed the species, and the threats are not as significant as we concluded at the time of listing. When looking at the overall data from the past 20 years and applying our best professional judgment, we find that the overall lesser long-nosed bat population trend is positive, a conclusion that our conservation partners in Mexico also relied upon when they delisted the lesser long-nosed bat in 2013. Consequently, stable and increasing numbers of lesser long-nosed bats, in conjunction with the various analyses included in our SSA have led us to conclude that the lesser long-nosed bat no longer meets the definition of threatened or endangered under the Endangered Species Act.

Comment (3): One peer reviewer expressed concern that habitat loss and climate change could create a catastrophic effect on resource availability in the southwestern United States. The reviewer also believed that food items are lacking along the migration route in the United States. Thus, the reviewer believed that the species should not be delisted at this time.

Our Response: We reviewed the best scientific and commercial information available when conducting the threats analysis. We acknowledge that climate change is likely to affect forage availability in the future, both in Mexico and the United States. However, we cannot predict at this time specifically how forage resources will be affected, and how lesser long-nosed bats are likely to respond to these changes. Loss of lesser long-nosed bat habitat and forage resources are a threat that does not appear to be as significant as described at the time this species was listed as an endangered species. In the SSA and this final delisting rule, we discuss the apparent flexibility and adaptability of the lesser long-nosed bat with regard to changes in forage availability. We acknowledge that the opportunity to observe this adaptability has been limited and may not represent future long-term changes in forage availability; however, it provides evidence of the ability of this species to maintain viability during local or seasonal changes in forage availability. We have determined that, while threats to forage availability may be affecting individuals or specific sites or areas within the range of the lesser long-nosed bat, they do not represent significant threats to the overall population of the lesser long-nosed bat.

Overall, the threats to foraging areas have been reduced since the species was listed under the Act. Foraging habitat for the species is primarily on public lands and is managed and conserved through inclusion in resource management plans as noted in Factor D above. Thus, land use plans, State regulatory mechanisms, and ongoing conservation measures support increased conservation efforts for the lesser long-nosed bat habitat and forage resources in the United States.

Comment (4): One peer reviewer suggested that we attempt to get better documentation related to the consistency and quality of data used to evaluate and describe the status of the lesser long-nosed bat in Mexico.

Our Response: We are committed to ongoing communication and coordination with our Mexican conservation partners. The draft post-delisting monitoring plan includes the use of available information on the status of the lesser long-nosed bat in Mexico to ensure that we consider the entire range of the species in assessing its status absent the protections of the Act. We consider the information we used during development of the SSA and the final delisting rule related to the 2013 delisting of the lesser long-nosed bat in Mexico, in conjunction with other data from Mexico provided during our SSA process, to be the best available scientific information at this time. We will work with our partners on both sides of the U.S.-Mexico border to update and improve the information regarding the status of the lesser long-nosed bat in Mexico.

Public Comments

During the public comment period for the proposed rule, we received comments from 19 individuals or organizations. Of these, six provided substantial comments which we address below.

Comment (6): Several commenters would support the Service in downlisting the lesser long-nosed bat to a threatened species, but do not support delisting.

Our Response: We assessed the status of the species based on the best available scientific and commercial information, and included expert input and review. Mexico completed a similar process in 2013 where they evaluated the current status of the lesser long-nosed bat in Mexico. The result of that analysis was the removal of the lesser long-nosed bat from Mexico's version of the endangered species list. We considered that determination when evaluating the range-wide status of the lesser long-nosed bat. We analyzed the information within the SSA and determined that the lesser long-nosed bat does not meet the definition of endangered nor does it meet the definition of a threatened species, because the future scenario's analysis indicate that the lesser long-nosed bat will retain its viability into the foreseeable future due to high resiliency, redundancy, and representation. In addition, the population is stable or increasing, threats are not as significant as previously believed or have been alleviated through management, and conservation actions continue to be implemented. Therefore, the lesser long-nosed bat is not in danger of extinction now or within the foreseeable future. We have determined that the lesser-long nosed bat has recovered and no longer meets the definition of endangered or threatened under the Act.

Comment (7): Several commenters requested that the Service explain the rationale it used to estimate the current population of the species. One commenter stated that the estimate regarding post-maternity population size in the proposed rule is not a defendable number.

Our Response: Counts of bats at nearly every known lesser long-nosed bat roost have occurred at least to some extent over the past 20 years in both the United States and Mexico. We cannot generate statistically rigorous population numbers or trend from these counts because limited resources has meant that roost counts do not always occur annually and, with the exception of a few sites, very rarely have multiple counts per year been completed. However, these counts have generally occurred multiple times over the past 20 years and they represent information that can be used to assess the status of

the population. To do this, we relied upon the professional judgement of those conducting the counts, supported by a data set that, although not statistically robust, is a long-term data set. This input has been that, in general, the trend in overall numbers has been stable or increasing in both the United States and Mexico (AGFD 2005 and 2016, entire; Medellín and Torres 2013, pp. 11–13; Buecher 2016, p. 10; Cerro 2012, p. 23). The number of lesser long-nosed bats at any given roost fluctuates considerably each year and among years making it crucial to have long-term data sets to assess the status of the lesser long-nosed bat population. We considered the overall roost counts for maternity sites and at late-summer transition roosts, understanding that there is likely some overlap between individuals within those two sets of data. We also considered count data from Mexico understanding that there is overlap of individuals within the migratory segment of the population that inhabits both the United States and Mexico. This has allowed us to estimate that the overall population is probably at least 200,000, especially considering that one maternity site has consistently been counted at over 100,000 bats annually for many years. It also allows us to support the conclusion given to us by researchers familiar with these roost sites that indicate increasing and stable populations at nearly all roost sites that are being monitored. A good example are roost sites on Fort Huachuca in the Huachuca Mountains of Arizona. Monitoring over the past 24 years indicates steady increases in the numbers of lesser long-nosed bats at these roosts. In addition, two roost sites that had been abandoned have been reoccupied (Sidner 2005; Buecher 2016; p. 17). However, we also have documented the abandonment of roost sites including roost sites in the Chiricahua and Santa Rita mountain ranges.

We believe that we have conservatively estimated the overall lesser long-nosed bat population to be at least 200,000. The count data used in the SSA and the proposed delisting rule represent more of an index of population size and not the exact number of lesser long-nosed bats that exist within its range. Again, we acknowledged that the population numbers used in the SSA and the proposed delisting rule do not represent actual population numbers. We are required to make decisions based on the best available scientific and commercial data and have used this count data to evaluate the current status of the species. While numbers fluctuate both within and between years, the count data we used was generally gathered using a consistent approach and over a relatively long period of time such that we believe this does provide an index of population size. The total number of bats currently being documented is many times greater than those numbers upon which the listing of this species relied, and while this may, in large part, reflect a better approach to survey and monitoring in subsequent years, it gives us better information upon which to evaluate the status of the lesser long-nosed bat population.

In addition, a documented expansion of the known range of the lesser long-nosed bat in the United States has occurred subsequent to listing. According to Bat Conservation International (lit 2017), recent reports from Dr. Keith Geluso at the University of Nebraska have identified the presence of lesser long-nosed bats near Gila, New Mexico. This is an expansion of over 100 miles north of known occurrences in Hidalgo County, NM. Additional data collected by Buecher Biological Consulting confirmed the presence of this species in the southern Big Burros Mountains at hummingbird feeders (HEG 2015, entire). These reports are approximately 100 miles north of the historic northern extent of their range in the Peloncillo and Big Hatchet Mountains.

Comment (8): Several commenters suggested that additional evaluation and quantitative analyses of the population size and trend is needed before a determination that downlisting or delisting can be supported.

Our Response: As stated in our response to the previous comment, we acknowledge that we do not have statistically rigorous roost count data that provides a statistically sound population estimate. Past, current, and future resources have not and are unlikely to support future roost counts at the intensity needed to provide such a population estimate. However, the count data we do have, in conjunction with the professional judgment of the biologists conducting these counts and of those involved in the management of roost sites, does provide us a picture of increased numbers and known roost sites subsequent to the listing of the lesser long-nosed bat in 1988. As stated in the proposed rule, there has been a steadily increasing effort related to the conservation of this subspecies for the last 20 years following the completion of the lesser long-nosed bat recovery plan. Better methods of monitoring have been developed. These monitoring efforts have led to an increase in the number of known roosts throughout its range. The 1988 listing rule emphasized low population numbers along with an apparent declining population trend. At this time, we have documented increased lesser long-nosed bat numbers and positive trends at most roosts sites, as well as an increased number of knowns roosts and an expansion of the range of this species in the United States.

Much of the debate as to the legitimacy of the 1988 listing of the lesser long-nosed bat centers around the population numbers and trends recorded from roost site monitoring. At the time of listing, population numbers and trends used by the Service in determining the endangered status of the lesser long-nosed bat showed low numbers and a declining trend (Wilson 1985). Information gathered since the listing show higher population numbers and a generally stable to increasing trend (Cockrum and Petryszyn 1991, AGFD 2005, entire, AGFD 2016, entire). Further, the increasing trend in Mexico warranted and resulted in the removal of the lesser long-nosed bat from Mexico's Law for Endangered Protection in 2013.

We anticipate that ongoing post-delisting monitoring will detect any significant changes in population health and allow for adaptive management responses, including possible re-listing, if necessary. As is the case with many listed species, we have not had, nor do we anticipate that we will have in the future, adequate resources to gather all the information we would like or feel is necessary to evaluate prior to delisting the lesser long-nosed bat. We rely on the best available scientific and commercial information. Based on this information, we have determined that the population of the lesser long-nosed bat is currently viable and will likely maintain viability into the future based on the analysis contained in our SSA and this final rule.

Comment (9): Several commenters remarked on and requested that the Service should more rigorously consider whether roost protections are likely to be maintained post-delisting in the absence of regulatory requirements of the Act.

Our Response: After delisting, the lesser long-nosed bat will continue to be a high priority for conservation activities due to its status in both New Mexico and Arizona's State Wildlife Action Plans (SWAP). New Mexico has the species identified as a Species of Greatest Conservation Need. In Arizona's SWAP, the lesser long-nosed bat is named as a special status species and monitoring roosts is a proposed activity in the plan. Further, the U.S.

Forest Service has the species identified as Regional Forester Sensitive, providing it with additional conservation status in all regional USFS National Environmental Policy Act analyses. These classifications and proposed conservation activities were not identified when the lesser long-nosed bat was listed in 1988.

We acknowledge that sustaining efforts of post-delisting monitoring can be challenging and subject to competing priorities for available resources. Nonetheless, we have designed the draft post-delisting monitoring plan to be realistic given limited resources and will continue to work with our conservation partners to obtain the resources necessary to implement post-delisting monitoring. As occurred prior to delisting, we anticipate protection and conservation of the lesser long-nosed bat will continue to be implemented as the result of existing management and land use plans, as well as other State and Federal laws related to protection of bats and their habitats, including caves used as roosts. These laws and plans will continue to be implemented and used to benefit the conservation of the lesser long-nosed bat following delisting. We acknowledge that the level of support for ongoing lesser long-nosed bat conservation actions changes over time and is often focused on species listed under the Act. However, we have reached out to our Federal and non-Federal lesser long-nosed bat conservation partners as we worked to address comments on and finalize the delisting rule for the lesser long-nosed bat to assess their level of participation in future conservation actions for this species. They have indicated that they will continue to implement conservation actions as appropriate and as resources are available.

Our discussion in Factor A above includes a number of specific examples of conservation actions that our conservation partners have and are implementing; many of which are regulatory requirements. We are confident that actions similar to those discussed above in this section will continue to benefit the conservation of lesser long-nosed bat even absent the regulatory protections of the Act as such actions have done in Mexico. Lesser long-nosed bat recovery has occurred because of the commitments of our conservation partners that have gone well beyond the requirements of the Act. The recovery of the lesser long-nosed bat is evidence of how effective species conservation can be when supported by a committed, active group of binational conservation partners.

Comment (10): One commenter suggested that gates are ineffective in protecting lesser long-nosed bat roosts.

Our Response: We are still developing the most appropriate gate design and implementation strategy for gates on lesser long-nosed bat roosts. Three efforts to physically protect roosts through the use of gates or barriers have been implemented (Bluebird and State of Texas). The experimental fence at the Bluebird Mine worked initially, but it was subsequently vandalized resulting in roost abandonment. The gate was repaired and there have been no subsequent breeches and the bats have recolonized the site. Gating at the State of Texas mine has had some success (the site is protected, but bat numbers have declined), but we still do not know how lesser long-nosed bats will adapt to gates over time or if gates will prove to be a viable option for lesser long-nosed bat roost protection, especially at roosts containing the largest numbers of bats. A protective gate was installed at the Cave of the Bells roost site. This site has not been occupied since gating (AGFD 2005, entire). It is not entirely clear if the gating was responsible for abandonment of this roost, but additional research has indicated that gating may be problematic for lesser long-nosed bats based on colony size and flight speeds. Bat gates are an excellent conservation tool for bat roosts, but they may not be as suitable for lesser long-nosed bats (Ludlow and Gore 2000). Further research, similar to efforts at Coronado National Memorial, is needed before the effectiveness of this tool can be determined (Bucci et al. 2003). Current efforts are underway to use the existing gate at Coronado National Memorial to determine a better gate design and configuration with regard to lesser long-nosed bats. Regardless, the gates do provide protection from disturbance and as such, benefit the long-term conservation of the lesser long-nosed bat.

Comment (11): Several commenters stated that with the on-going impact of illegal border activity occurring across the U.S.-Mexico border, abandoned mines and caves used by the bat are still at risk from disturbance.

Our Response: Patterns of cross-border traffic are continually changing and, while the level of use in proximity to roosts may rise and fall, roost sites nonetheless occur in areas where they are vulnerable to disturbance by border traffic. In general, recent data indicates that illegal border crossings have decreased. This may indicate a current downturn in illegal border activity, but this trend may reverse at any time. The roost monitoring proposed in our draft post-delisting monitoring plan will provide regular assessments of lesser long-nosed bat roosts and allow us to respond appropriately if threats or impacts from illegal border activities become an issue.

We have determined that, while activities associated with illegal border crossing may be affecting individuals or specific sites or areas within the range of the lesser long-nosed bat, they do not represent significant threats to the overall population of the lesser long-nosed bat.

Comment (12): One commenter stated that growing human populations and increased rate of urbanization within the range of the lesser long nosed bat will increase the prevalence of vandalism at roost sites.

Our Response: Lesser long-nosed bats can be affected directly by development which removes important foraging habitat, but also indirectly as growing numbers of people increase the potential for roost disturbance. We have specifically addressed the issue of development and urbanization in Factor A above. We have determined that, while human development and urbanization may be affecting individuals or specific sites or areas within the range of the lesser long-nosed bat, they do not represent significant threats to the overall population of the lesser long-nosed bat.

Comment (13): Several commenters suggested that the species' food resources are unstable and the species' resilience to the 2004 cactus bloom failure event was overstated.

Our Response: We have determined that there is a lack of evidence presented within the best available scientific and commercial information that these issues are or will have population-level effects on the lesser long-nosed bat. The threat to foraging areas has been reduced since the species was listed under the Act. A key to maintaining lesser long-nosed bat population viability into the future is assuring that forage species remain present and appropriately distributed across the landscape and available for the various life history requirements of the lesser long-nosed bat. Foraging habitat for the species is primarily on public lands and is conserved through inclusion in resource management plans. These plans provide guidance and measures to ensure that forage resources such as agaves and columnar cacti remain present in the landscape. For example, we are working with The Department of Defense facility at Fort Huachuca to continue their Agave Management Plan as part of their Integrated Natural Resources

Management Plan which states that it will maintain a self-sustaining populations of *Agave palmeri* on Fort Huachuca to conserve the forage base of the lesser long-nosed bat and other species using agave. The Coronado National Forest's 2017 LRMP includes standards and guidelines to retain and enhance areas with paniculate agaves in order to benefit the lesser long-nosed bat. The Bureau of Land Management has forage plant protections within the range of the lesser long-nosed bat, including avoidance measures to protect agave and saguaros. Organ Pipe Cactus National Monument and Cabeza Prieta National Wildlife Refuge protect hundreds of square miles of areas containing foraging plants for the bat within its refuge boundaries. We are confident that these efforts and protections will continue even after the lesser long-nosed bat is delisted.

Comment (14): One commenter suggested that lesser long-nosed bats may become dependent on artificial food resources (*i.e.,* hummingbird feeders), which may work as a temporary replacement of their natural food but are not sufficient as a sustainable food resource.

Our Response: As stated in the SSA, one interesting aspect of the foraging behavior of lesser long-nosed bats is the fact that they readily find and use hummingbird feeders as a forage resource (Buecher and Sidner 2013, Wolf 2006, Town of Marana 2017). Some hypothesize that the year-round presence of hummingbird feeders in southern Arizona and New Mexico support lesser long-nosed bats staying later in the year in these areas, perhaps even year-round. It is possible that this extra availability of forage resources may be one factor that has led to the lesser long-nosed bat's increased stability and progress towards recovery. The increase and permanent presence of hummingbird feeders at homes in southern Arizona and New Mexico may supply a consistent forage resource for these nectar-feeding bats that allows them to use and remain in areas when natural forage resources are absent or reduced (R. Sharp, 2013 pers. comm.). Alternatively, the long-term effects of staying longer before migrating southward and the questionable nutritional value of the sugar water in the hummingbird feeders are unknown and could actually be detrimental.

In 2006, in southern Arizona, there was a significant failure of blooming agaves. As a result, many members of the public reported that bats were using their hummingbird feeders that year. The Service, AGFD, and the Town of Marana initiated a citizen scientist program to track use of hummingbird feeders in 2007 based on Wolf (2006, entire) and, over the past approximately 10 years, the volunteer network of feeder watchers has grown to more than 100 individuals monitoring their hummingbird feeders across southern Arizona. This has resulted in a tremendous amount of data and some very interesting results.

The existence of this ongoing study related to lesser long-nosed bat use of hummingbird feeders provides us an opportunity to continue to assess and evaluate the potential benefits and negative effects of hummingbird feeders on the landscape within the range of the lesser long-nosed bat. Currently, there is no evidence that this resource in the landscape is negatively affecting the lesser long-nosed bat population.

Comment (15): Several commenters stated that the impacts of climate change to bat distributions are unknown at this time and that the SSA did not adequately acknowledge the threat of climate change.

Our Response: The lesser long-nosed bat SSA incorporates the best available scientific and commercial information related on the current state of our understanding of the potential effects of climate change on the lesser long-nosed bat. We acknowledge the limitations of the currently available information related to predicting the potential impacts of climate change on the lesser long-nosed bat specifically. However, we have determined that, while climate change may be affecting individuals or specific sites or areas within the range of the lesser long-nosed bat, it does not represent a significant threat to the overall population of the lesser long-nosed bat based upon the analysis we completed in the SSA.

We are committed to using the best available scientific and commercial information in our analysis of the current and future status of the lesser long-nosed bat. We acknowledge that ecosystems within the southwestern United States are thought to be particularly susceptible to climate change and variability (Strittholt et al. 2012, pp. 104–152; Munson et al. 2012, pp. 1–2; Archer and Predick 2008, p. 23). Documented trends and model projections most often show changes in two variables: temperature and precipitation. Recent warming in the southwest is among the most rapid in the nation, significantly more than the global average in some areas (Guido et al. 2009, pp. 3–5). Bagne and Finch (2012 and 2013; pp. 107–116; pp. 150–160) assessed the vulnerability of the lesser long-nosed bat to the effects of climate change in the areas of the Barry M. Goldwater Range (southwestern Arizona) and at Fort Huachuca (southeastern Arizona). They concluded that the lesser long-nosed bat was moderately vulnerable to declines related to global climate change. Vulnerability was increased by reliance on the quantity and timing of flowering of a limited number of plant species, while resilience is incurred by flexible migratory behaviors and the probable resilience of forage plant populations to increasing temperatures.

They also predicted that changes in climate are expected to exacerbate current threats. One of the primary factors related to the vulnerability of this species to climate change was the adaptability of non-native grasses and the potential changes in fire regime that are expected under most climate change scenarios. However, current climate change modeling efforts do not allow us to predict what the effects of this climate change will be beyond a relatively short timeframe. We are not able to conclude what the effects of climate change will be on the lesser long-nosed bat population distribution and viability given the current level of information we have related to climate change on forage resources such as saguaros and agaves. However, we acknowledge the potential for climate change to affect lesser long-nosed bat forage availability, and we have included an assessment of this issue as part of the draft post-delisting monitoring plan. This will provide us with information to make a better informed evaluation of the potential effects of climate change on lesser long-nosed bat forage resources. Results of this monitoring will allow us to formulate potential adaptive management actions to address these effects, or consider relisting the species if necessary.

The best available scientific and commercial information indicates that the current population condition of the lesser long-nosed bat appears to indicate that lesser long-nosed bats may be showing some resiliency with regard to fluctuating food plant flowering cycles.

Comment (16): Several comments expressed concern with regard to current regulations and laws not adequately protecting bats and caves.

Our Response: The Federal Cave Protection Act of 1988 prohibits persons from activities that ''destroy, disturb, deface, mar, alter, remove, or harm any significant cave or alters free movement of any animal or plant life into or out of any significant cave located on Federal lands, or enters a significant cave with the intent of committing any act described . . .'' Arizona Revised

Statute 13–3702 makes it a class 2 misdemeanor to ''deface or damage petroglyphs, pictographs, caves, or caverns.'' Activities covered under ARS 13–3702 include ''kill, harm, or disturb plant or animal life found in any cave or cavern, except for safety reasons.'' We acknowledge that these regulations are only as effective as their enforcement, but we are confident that our Federal and State partners will enforce these regulations to the best of their ability. We are currently aware of only one site where abandonment of the roost resulted from human disturbance. This issue was addressed through fencing and human disturbance has not been an issue since the fencing was installed.

Comment (17): Two commenters discussed the potential effects of wind energy development. One indicated that wind energy facilities were not adequately evaluated in the SSA and the proposed delisting rule.

Our Response: We are aware of lesser long-nosed bat fatalities from wind energy development facilities in both the United States and Mexico. However, because monitoring at these sites is not comprehensive and because this is an emerging threat without much information available specifically related to lesser long-nosed bats, it is difficult to determine the actual long-term impact of wind turbines on this species. Based on existing wind energy development, there are two wind energy facilities in Arizona (producing 268 MW of power) and one wind energy facility in New Mexico (producing 1,112 MW of power) within the range of the lesser long-nosed bat. The American Wind Energy Association (AWEA) has identified an additional six projects under development in New Mexico; however, none of these projects are within the range of lesser long-nosed bat. The AWEA has identified no additional projects under development in Arizona within the range of the lesser long-nosed bat. Through 2050, the U.S. Department of Energy's Wind Vision (2013) report, projects 5 and 15 gigawatts of wind generating capacity for Arizona and New Mexico respectively. However, based on wind resource maps from the National Renewable Energy Laboratory, measured at 80 meters above ground level, wind resources are limited within the range of the lesser long-nosed bat in either State. While we do not have any specific information related to wind energy development in Mexico, short- and medium term projects indicate that the development of wind power is expected to take an increasingly important position in Mexico's energy landscape. One source predicts that wind energy development in Mexico will increase four fold from 2016 to 2020.

The impact of wind energy development on lesser long-nosed bats is unknown and more attention must be paid to characterizing and avoiding potential impacts. Because lesser long-nosed bats are migratory, and impacts from wind energy facilities to migratory bats are well documented, the construction of new facilities should be carefully sited to avoid roosts and migratory flyways. Moreover, construction of sites within the range of the lesser long-nosed bat should be monitored and fatalities reported with adaptive management strategies in place to reduce fatalities over time.

Required Determinations

National Environmental Policy Act

We have determined that environmental assessments and environmental impact statements, as defined under the authority of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*), need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, ''Government-to-Government Relations with Native American Tribal Governments'' (59 FR 22951), Executive Order 13175, 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. Therefore, we solicited information from Native American Tribes during the comment period to determine potential effects on them or their resources that may result from the delisting of the lesser long-nosed bat, and we fully considered their comments in this final rule.

References Cited

A complete list of all references cited in this rule is available on *http://www.regulations.gov* in Docket No. FWS–R2–ES–2016–0138, or upon request from the Field Supervisor, Arizona Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this document are the staff members of the Arizona Ecological Services Field Office, U.S. Fish and Wildlife Service (see **FOR FURTHER INFORMATION CONTACT**).

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

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

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

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

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

§ 17.11 [Amended]

■ 2. Amend § 17.11(h) by removing the entry for ''Bat, lesser long-nosed'' under MAMMALS from the List of Endangered and Threatened Wildlife.

Dated: March 8, 2018.

James W. Kurth,

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

[FR Doc. 2018–08121 Filed 4–17–18; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 635

[Docket Nos. 120328229–4949–02 and 150121066–5717–02]

RIN 0648–XG140

Atlantic Highly Migratory Species; Atlantic Bluefin Tuna Fisheries

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

ACTION: Temporary rule; annual adjustment of Atlantic bluefin tuna Purse Seine and Reserve category quotas; inseason quota transfer from the Reserve category to the Longline category.

SUMMARY: NMFS is adjusting the Atlantic bluefin tuna (BFT) Purse Seine and Reserve category quotas for 2018, as it has done annually since 2015. NMFS also is transferring 44.5 metric tons (mt) of BFT quota from the Reserve category