4. Verification of Consumer Eligibility for Lifeline—Sampling Methodology

In the 2011 Lifeline and Link Up NPRM, the Commission proposed to amend § 54.410 of its rules to establish a uniform methodology for conducting verification sampling that would apply to all ETCs in all states. The NPRM also asked commenters to consider two proposals for modifying the existing sampling methodology to more effectively balance the need for an administratively feasible sampling methodology with the Commission’s obligation to ensure that ineligible consumers do not receive Lifeline/Link Up benefits. We invite additional comment on this issue.

a. With respect to the Commission’s sample-and-census proposal, could the Commission implement it in a way that would be more easily administrable for ETCs, particularly ETCs with a small number of Lifeline subscribers? 

b. TCA proposes that, if the Commission adopts a sample-and-census rule, carriers with a small number of Lifeline subscribers should be required to sample fewer consumers than ETCs with a larger number of Lifeline subscribers. We seek comment on this proposal. Should the Commission consider a smaller sample size for ETCs with a small number of Lifeline customers in a given state? What number of respondents could ETCs with a smaller number of Lifeline customers feasibly sample in a given year, keeping in mind that reducing the required number of respondents could result in larger margins of error?

c. Alternatively, should carriers with a small number of Lifeline subscribers be required to sample only a specified percentage of their customer base? What would be a reasonable percentage in such cases?

This matter shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s ex parte rules. Persons making oral ex parte presentations are reminded that memoranda summarizing the presentations must contain summaries of the substance of the presentation and not merely a listing of the subjects discussed. More than a one or two sentence description of the views and arguments presented generally is required. Other rules pertaining to oral and written ex parte presentations in permit-but-disclose proceedings are set forth in § 1.1206(b) of the Commission’s rules.
The factors that are the basis for making a listing determination for a species under section 4(a) of the Act (16 U.S.C. 1531 et seq.), which are:

(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.

If, after the status review, we determine that listing the Leona’s little blue butterfly is warranted, we will propose critical habitat (see definition in section 3(5)(A) of the Act) under section 4 of the Act, to the maximum extent prudent and determinable at the time we propose to list the species. Therefore, we also request data and information on:

1. What makes the species “physical or biological features essential to the conservation of the species,” within the geographical range currently occupied by the species;
2. Where these features are currently found;
3. Whether any of these features may require special management considerations or protection;
4. Specific areas outside the geographical area occupied by the species that are “essential for the conservation of the species”; and
5. What, if any, critical habitat you think we should propose for designation if the species is proposed for listing, and why such habitat meets the requirements of section 4 of the Act.

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

You may submit your information concerning this status review by one of the methods listed in the ADDRESSES section. If you submit information via http://www.regulations.gov, your entire submission—including any personal information—will be posted on the Web site. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this personal identifying information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on http://www.regulations.gov.

Information and supporting documentation that we received and used in preparing this finding is available for you to review at http://www.regulations.gov, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Klamath Falls Fish and Wildlife Office (see FOR FURTHER INFORMATION CONTACT).

**Background**

Section 4(b)(3)(A) of the Act requires that we make a finding on whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information indicating that the petitioned action may be warranted. We are to base this finding on information provided in the petition, supporting information submitted with the petition, and information otherwise available in our files. To the maximum extent practicable, we are to make this finding within 90 days of our receipt of the petition and publish our notice of the finding promptly in the Federal Register.

Our standard for substantial scientific or commercial information within the Code of Federal Regulations (CFR) with regard to a 90-day petition finding is “that amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted” (50 CFR 424.14(b)). If we find that substantial scientific or commercial information was presented, we are required to promptly conduct a species status review, which we subsequently summarize in our 12-month finding.

**Petition History**

On May 12, 2010, we received a petition dated May 12, 2010, from the Xerces Society, Dr. David McCorkle of Western Oregon University, and Oregon Wild, requesting that the Leona’s little blue butterfly be listed as endangered and that critical habitat be designated under the Act. The petition clearly identified itself as such and included the requisite identification information for the petitioners, as required by 50 CFR 424.14(a). In a September 10, 2010, letter to the petitioners, we responded that we reviewed the information presented in the petition and determined that issuing an emergency regulation temporarily listing the species under section 4(b)(7) of the Act was not warranted. We also stated that we were required to complete a significant number of listing and critical habitat actions in Fiscal Year 2010 pursuant to court orders, judicially approved settlement agreements, and other statutory deadlines, but that we had secured funding for Fiscal Year 2011 and anticipated publishing a finding in the Federal Register in July 2011. This finding addresses the petition.

**Species Information**

The Leona’s little blue butterfly is a member of the Polyommatusi Tribe (a taxonomic group under family) (Pyle 2002, p. 222) of the Lycaenidae family (Mattoni 1977, p. 223; Hammond and McCorkle 1999, p.1), and is the largest species in the Philotyiella genus (Hammond and McCorkle 1999, p. 82).

The Leona’s little blue butterfly was discovered in 1995; the historical range of the species is unknown. The current known distribution of the Leona’s little blue butterfly occurs within a 6-square-mile (15.6-square-kilometer) area of the Antelope Desert, east of Crater Lake National Park in southern Oregon (Hammond and McCorkle 1999, p. 77; Ross 2008, p. 1). The majority of this habitat occurs on the Mazama Tree Farm property, which is privately owned by Cascade Timberlands, LLC. A small percentage of land on which the Leona’s little blue butterfly occurs is in the Fremont-Winema National Forests, United States Forest Service (USFS). There have been no rigorous presence/absence surveys conducted, and it is unknown if additional populations of the Leona’s little blue butterfly exist in similar habitat elsewhere in northeastern California and eastern Oregon (Hammond and McCorkle 1999, p. 80; Ross 2008, p.1).

In addition, there is no information on population trends of the Leona’s little blue butterfly; however, the current population, based on a 2008 flight season count extrapolation, is estimated at 1,000 to 2,000 individuals (Ross 2010, p. 7).

The Leona’s little blue butterfly is found in volcanic ash and pumice fields and meadows (Hammond and McCorkle 1999, p. 77; Pyle 2002, p. 236; Ross 2008, p. 1) consisting of a nonforested bitterbrush/needlegrass-sedge community (Volland 1985, p. 29; Johnson 2010, p. 2). Johnson (2010, p. 4) states that the plant community in the known, occupied habitat overlays a “quaternary alluvial fan with very deep alluvium derived from pumice and other volcanic rock.” The Leona’s little blue butterfly utilizes several species of plants as nectar sources, including...
Eriogonum spargulanum (spurry buckwheat), Eriogonum umbellatum var. polyanthum (sulphur buckwheat), and an Epilobium species (Hammond and McCorkle 1999, p. 82; Ross 2008, pp. 1, 5, and 20; Johnson 2010, p. 5), but the butterfly is known to have only one larval hostplant, *Eriogonum spargulanum* (Hammond and McCorkle 1999, p. 80; Ross 2008, p. 1; Johnson 2010, p. 1). The Leona’s little blue butterfly undergoes complete metamorphosis, developing through the egg, larva, and pupa stages in one summer, and then emerges from its chrysalis as an adult the following year (Ross 2010, p. 4). Adults of this species emerge for approximately 2 to 3 weeks in mid-June through mid-July (Ross 2008, p. 1; Ross 2010, p. 4).

We accept the characterization of the Leona’s little blue butterfly at the species level based on the differences in size and wing coloration between it and the closely related *Philotisella speciosa* species (small-dotted blue butterfly), as well as the divergence of male and female genitalia between these two species (Hammond and McCorkle 1999, pp. 79–80). Additionally, the species is recognized as valid by the Integrated Taxonomic Information System (ITIS) and is described in NatureServe.

**Evaluation of Information for This Finding**

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations at 50 CFR part 424 set forth the procedures for adding a species to, or removing a species from, the Federal Lists of Endangered and Threatened Wildlife and Plants. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1) of the Act:

(A) The present or threatened destruction, modification, or curtailment of its habitat or range;

(B) Overutilization for commercial, recreational, scientific, or educational purposes;

(C) Disease or predation;

(D) The inadequacy of existing regulatory mechanisms; or

(E) Other natural or manmade factors affecting its continued existence.

In considering what factors might constitute threats, we must look beyond the mere exposure of the species to the factor to determine whether the species responds to the factor in a way that causes actual impacts to the species. If there is exposure to a factor, but no response, or only a positive response, that factor is not a threat. If there is exposure and the species responds negatively, the factor may be a threat and we then attempt to determine how significant a threat it is. If the threat is significant, it may drive or contribute to the risk of extinction of the species such that the species may warrant listing as endangered or threatened as those terms are defined by the Act. This does not necessarily require empirical proof of a threat. The combination of exposure and some corroborating evidence of how the species is likely impacted could suffice. The mere identification of factors that could impact a species negatively may not be sufficient to compel a finding that listing may be warranted. The information shall contain evidence sufficient to suggest that these factors may be operative threats that act on the species to the point that the species may meet the definition of threatened or endangered under the Act.

In making this 90-day finding, we evaluated whether the information regarding threats to the Leona’s little blue butterfly, as presented in the petition and other information available in our files, is substantial, thereby indicating that the petitioned action may be warranted. Our evaluation of this information is presented below.

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

**Information Provided in the Petition**

The petition asserts that the Leona’s little blue butterfly is threatened by loss of habitat due to intensified management for timber production, lodgepole pine tree encroachment, and fire (Xerces Society for Invertebrate Conservation 2010, pp. 10–11). The petition recognizes the need for active management of the Leona’s little blue butterfly habitat; however, it states that the impacts of intensified timber production management on the Mazama Tree Farm may be destructive to the Leona’s little blue butterfly habitat (Xerces Society for Invertebrate Conservation 2010, p. 11). In particular, the petition states concerns about the impacts of additional roads, traffic, and heavy equipment operations to the Leona’s little blue butterfly habitat (Xerces Society for Invertebrate Conservation 2010, p. 11). The petition states that fire suppression over the last 50 years has led to a loss of meadow and other open canopy habitat (Xerces Society for Invertebrate Conservation 2010, p. 10). Specifically, the petition states that young lodgepole pine trees have encroached into open patches of habitat resulting in a loss of breeding and foraging habitat for the Leona’s little blue butterfly on the Mazama Tree Farm property (Xerces Society for Invertebrate Conservation 2010, p. 10). This encroachment increases the fuel loads of the forest which could also result in a catastrophic fire across the landscape (Xerces Society for Invertebrate Conservation 2010, p. 10). The petition claims that such a fire could have deleterious impacts to the survival of the only population of the Leona’s little blue butterfly (Xerces Society for Invertebrate Conservation 2010, p. 10). The petition also states that grazing, cinder mining, and the potential development of a biomass energy facility may have deleterious impacts on the only population of the Leona’s little blue butterfly. The first land management practice discussed in the petition is livestock grazing (Xerces Society for Invertebrate Conservation 2010, p. 15). The petition cites the Winema National Forest Land and Resource Management Plan, hereafter the USFS Plan, and the Klamath Tribes’ Management of the Klamath Reservation Forest Plan, stating that both plans allow for livestock grazing on the Leona’s little blue butterfly habitat (Xerces Society for Invertebrate Conservation 2010, p. 16). While the petition notes the lack of knowledge of the impact of livestock grazing on the Leona’s little blue butterfly habitat, it concludes that livestock grazing is incompatible with the management of the Leona’s little blue butterfly population because adult food sources may be eaten by the cattle and the cattle may disturb the soil, allowing weeds to invade (Xerces Society for Invertebrate Conservation 2010, pp. 15–16). The petition also asserts that cattle have the ability to destroy native vegetation (Xerces Society for Invertebrate Conservation 2010, p. 15).

The second land management practice that the petition cites is cinder mining (Xerces Society for Invertebrate Conservation 2010, p. 15). The petition asserts that numerous cinder mining pits, managed by the Oregon Department of Transportation, exist within the vicinity of the Leona’s little blue butterfly habitat some of which occur within the Fremont-Winema National Forests (Xerces Society for Invertebrate Conservation 2010, p. 15). The petition claims that cinder mining pits are periodically expanded, resulting in the potential for exploration to occur within a 40 acre (ac) (16.2 hectare (ha)) area adjacent to any existing pits (Xerces Society for Invertebrate Conservation 2010, p. 15). The petition declares that the exploration, drilling, and expansion processes have the ability to destroy the Leona’s little blue butterfly habitat (Xerces Society for Invertebrate Conservation 2010, p. 15).
Finally, the petition states that a biomass energy facility may be developed by The Klamath Tribes within the Leona’s little blue butterfly habitat if the Mazama Tree Farm property is transferred to The Klamath Tribes. The petition claims that such a facility could negatively impact the Leona’s little blue butterfly habitat (Xerces Society for Invertebrate Conservation 2010, p. 15). The petition discusses the use of three herbicides—chlorosulfuron, glyphosate, and triclopyr—and their direct and indirect impacts to the Leona’s little blue butterfly habitat (Xerces Society for Invertebrate Conservation 2010, p. 14). The petition claims that these herbicides have the ability to impact the Leona’s little blue butterfly habitat by reducing nectar resources and host plants (Xerces Society for Invertebrate Conservation 2010, p. 14).

Evaluation of Information Provided in the Petition and Available in Service Files

Smallidge and Leopold (1997, p. 268) discuss the use of timber production as a means to maintain habitat for butterflies that require open clearings within woodlands. The occupied habitat of the Leona’s little blue butterfly was once logged, and the evidence of logging still persists. Timber extraction and production creates roads and additional disturbances that foster the development of early successional plants (Smallidge and Leopold 1997, p. 268). To evaluate this claim for the Leona’s little blue butterfly, aerial photos were reviewed that showed a large number of roads, cleared Right-of-Ways (ROWS), and large openings within the occupied habitat. In addition, the densest stands of *Eriogonum spargelimum*, the sole host plant for the Leona’s little blue butterfly, occur in disturbed areas around old burned slash piles, edges of unimproved roads, and periodically disturbed areas associated with the gas and electric powerline ROWs (Ross 2010, p. 5). In a study on Fender’s blue butterflies (*Icaricia icarioides fenderi*), Severns (2008, pp. 56–57) observed that roads were not a barrier to butterflies, as long as they were narrow and without vegetation barriers, and contained infrequent or slow-moving traffic. However, it is unknown how intensive timber production would impact the habitat of the Leona’s little blue butterfly. At this point, we have no information to indicate that the current landowner, Cascade Timberlands, LLC, intends to resume timber extraction in the future. In addition, while there is information that indicates The Klamath Tribes’ proposed management for the Leona’s little blue butterfly habitat is timber extraction (Johnson et al. 2008, pp. 23–24), the Klamath Forest Plan will not be implemented until the U.S. Congress authorizes funding for The Klamath Tribes’ purchase of the Mazama Tree Farm property from Cascade Timberlands, LLC. Therefore, we do not have substantial information within our files to indicate the petitioned action may be warranted due to loss of habitat from timber production and management. However, we will further evaluate information about these activities’ potential impact to the species in our status review.

The Klamath Forest Plan states that historically, the lodgepole pine/bitterbrush habitat type that existed was comprised of lodgepole forests in different age mosaics and low densities, with a definite bitterbrush component (Johnson et al. 2008, p. 21). However, an on-the-ground assessment of the butterfly habitat in 2009 by Sarina Jepson of the Xerces Society for Invertebrate Conservation indicates that encroachment of lodgepole pine trees is occurring (Xerces Society for Invertebrate Conservation 2010, p. 10). Neither the petition nor the information in our files indicates the rate at which lodgepole pine trees are encroaching into the openings and meadows that encompass the Leona’s little blue butterfly habitat. However, we have determined that the information provided in the petition and in our files concerning loss of open habitat associated with the encroachment of lodgepole pine trees does present substantial information indicating that the petitioned action may be warranted.

A review of the information provided by the petition and within our files indicates that The Klamath Tribe intends to use controlled burns to manage habitat similar to the Leona’s little blue butterfly’s habitat (Johnson et al. 2008, pp. 23–24). The Klamath Forest Plan’s management of the Leona’s little blue butterfly habitat is contingent on the future authorization of funding by the U.S. Congress to support The Klamath Tribes’ purchase of the Mazama Tree Farm property from Cascade Timberlands, LLC. Until this purchase occurs, there is no information to indicate that Cascade Timberlands, LLC, the current landowner, plans to use fire to manage the Leona’s little blue butterfly habitat. In addition, controlled burns appear to have both negative and positive effects on invertebrates (Smallidge and Leopold 1997, p. 271; Huntzinger 2003, p. 9; 2009, p. 2; Vogel et al. 2010, p. 672). Huntzinger (2003, p. 8) observed that butterfly species richness and diversity was greater in burned rather than unburned sites. However, Black et al. (2009, pp. 2, 11) observed a decline in Mardon skipper butterfly (*Polites mardon*) abundance at some sites in 2009 following a controlled burn in 2008. In addition, areas that burned within these study sites experienced population reductions within the 2009 flight period, compared to unburned areas, which increased in population numbers (Black et al. 2009, pp. 5–10). Vogel et al. (2010, p. 663) observed that habitat specialist butterflies required a long recovery period, approximately 50 to 70 months post-burn, to return to their pre-fire abundance and richness. Vogel et al. (2010, p. 673) suggests that the only potential for fire-sensitive species recovery is for recolonization from nearby unburned areas. On the other hand, Smallidge and Leopold (1997, p. 271) suggest controlled burns as a means of vegetation management in butterfly habitat, though they caution that controlled burning is most beneficial when the historical natural regime included fire and a comprehensive monitoring plan exists that is associated with the controlled burn (Huntzinger 2003, p. 9). The Oregon Department of Forestry (ODF) has kept extensive records on lightning strikes and their associated fires in this area since 1960. Approximately 10 fires, all under 0.2 ac (0.08 ha) in size, have occurred in occupied Leona’s little blue butterfly habitat since 1960 (Johnson 2010, p. 7). Each fire was suppressed by ODF (Johnson 2010, p. 7).

Even though fires are often suppressed, controlled burns or lightning strike fires can escape their perimeters and burn across the landscape. The petition cites an article that recognizes the high potential for fire danger on the Mazama Tree Farm due to a high density of lodgepole pine (Milstein 2008). It is uncertain whether the portion of the 90,000-ac (36,422-ha) Mazama Tree Farm (Milstein 2008) that contains the Leona’s little blue butterfly habitat is at high risk of a catastrophic fire. However, a catastrophic fire could be devastating to the habitat. Therefore, we have determined that the information provided in the petition and in our files presents substantial information indicating that the petitioned action may be warranted due to the potential effects of fire on the Leona’s little blue butterfly habitat. A review of the literature provided by the petition and within our files indicates that managed grazing can be considered a useful tool for maintaining butterfly habitat. Sites in southern Britain that were previously managed by
grazing, but were no longer grazed, had several species of butterflies that declined in abundance (Warren 1993, p. 45). However, caution must be used in the decision to implement grazing as a management tool, because overgrazing can have negative consequences on species diversity and abundance. For example, a grazing study in Britain showed that as the intensity of grazing increased, the invertebrate species richness decreased (Gibson et al. 1992, p. 171). Different herbivores have various effects upon the vegetation and the habitat that they graze (Warren 1993, p. 46; Smallidge and Leopold 1997, p. 270); therefore, the appropriate herbivores must be used for specific vegetation objectives, and the intensity of herbivore grazing must be monitored to avoid overgrazing (Warren 1993, p. 46; Smallidge and Leopold 1997, p. 270).

The USFS Plan allows for grazing within designated allotments on USFS land (USFS 1990, p. 2–6). However, there is no information within the USFS Plan or within our files, that indicates whether these allotments include the Leona’s little blue butterfly or its habitat. The USFS Plan does state that allotments will be managed to improve the condition of the range, and that the demand will be met only when it does not conflict with other uses such as wildlife and recreational needs (USFS 1990, p. 4–12). While the Klamath Forest Plan will allow for grazing on mule deer (Odocoileus hemionus) winter range, the Klamath Forest Plan’s application to the Leona’s little blue butterfly is contingent on the future authorization of funding by the U.S. Congress to support The Klamath Tribes’ purchase of the Mazama Tree Farm property from Cascade Timberlands, LLC. There is no information within the petition or within our files that indicates that the current owner, Cascade Timberlands, LLC, or the USFS plan will allow grazing in the Leona’s little blue butterfly habitat. Therefore, there is not substantial information to indicate that the petitioned action may be warranted due to habitat loss from grazing. However, we will further evaluate information about this activity’s potential impact to the species in our status review.

A review of the information in our files and provided by the petition regarding cinder mines indicates that proposed activities associated with the exploration for cinder mines could be detrimental to the habitat of the Leona’s little blue butterfly (Cruz 2006, Web site). However, the two proposed cinder mine expansion projects discussed by the petition, Lookout Butte and Jackson Creek, have both been canceled (USFS 2010, p. 1). File maps describe these projects as a minimum of 7 straight-line miles (mi) (11.3 kilometers (km)) from the known, occupied habitat for the Leona’s little blue butterfly (ESRI 2010). The USFS Plan states that “salable mineral material sources located within state or interstate transportation and utility corridors normally should not be developed” (USFS Plan 1990, p. 4–57). However, the Leona’s little blue butterfly habitat currently includes both transportation corridors and utility corridors in the form of ROWs for the Oregon Department of Transportation (ODOT) and the Bonneville Power Administration (BPA) (Johnson 2010, p. 10). It is unknown whether the Leona’s little blue butterfly habitat on the USFS parcels will be developed into cinder mines. While the petition provided us with information regarding proposed projects and their potential impacts to the Leona’s little blue butterfly and its habitat, the petition did not provide information, nor do we have information in our files, regarding the status, proximity, or future considerations of other potential cinder mining activities in or near Leona’s little blue butterfly habitat. Therefore, we do not have substantial information to indicate that the petitioned action may be warranted due to loss of habitat from cinder mining activities in the Leona’s little blue butterfly habitat. However, we will further evaluate information about this activity’s potential impact to the species in our status review.

Milestein (2008) states that The Klamath Tribes intend to develop a “green energy park centered around a biomass energy facility.” The Klamath Forest Plan indicates that a 10-megawatt (MW) biomass facility would require a minimum of 7 ac (2.8 ha) for proper siting and 40 truckloads per day of material for fuel (Johnson et al. 2008, pp. 92–93). The petition did not provide any information, nor do we have any information in our files, about the proposed location of this facility on the 90,000 ac (36,422-ha) Mazama Tree Farm property, and whether or not it might occur in the Leona’s little blue butterfly habitat. It is important to note that this proposed project cannot proceed until The Klamath Tribes receive funding from the U.S. Congress to purchase the property from Cascade Timberlands, LLC. Therefore, there is not substantial information to indicate that the petitioned action may be warranted due to development of habitat from the biomass facility construction. However, we will further evaluate information about this activity’s potential impact to the species in our status review.

While the petition provides references that support the negative effects of herbicides on invertebrates, a review of their references and the information within our files did not provide any evidence that these chemicals are being applied to the Leona’s little blue butterfly habitat. Therefore, we have determined that the information provided in the petition and in our files concerning the effects of herbicides on the Leona’s little blue butterfly does not present substantial information indicating that the petitioned action may be warranted due to loss of habitat associated with herbicides. However, we will further evaluate information about this activity’s potential impact to the species in our status review.

In summary, we find that the information provided in the petition, as well as other information in our files, presents substantial scientific and commercial information that the petitioned action may be warranted due to the present or threatened destruction, modification or curtailment of habitat or range relating to the encroachment of lodgepole pine trees into the Leona’s little blue butterfly habitat and catastrophic fire events. We will further evaluate all information relating to activities addressed under this factor in our status review of the species.

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

Information Provided in the Petition

The petition states that insect collection is an essential component to scientific study (Xerces Society for Invertebrate Conservation 2010, p. 16). The petition claims that, in a study to validate the Leona’s little blue butterfly as a species, it was necessary to collect 100 individuals (Xerces Society for Invertebrate Conservation 2010, p. 16). The petition also states that the only known population of the Leona’s little blue butterfly has a habitat and estimate of 1,000 to 2,000 individuals (Xerces Society for Invertebrate Conservation 2010, p. 16). Therefore, the petition considers the Leona’s little blue butterfly to be “vulnerable to over-collection” (Xerces Society for Invertebrate Conservation 2010, p. 16). Evaluation of Information Provided in the Petition and Available in Service Files

Hammond and McCorkle (1999, p. 77) list the number of individual Leona’s little blue butterflies collected and distributed to various institutions and
individuals as totaling 130 butterflies. We recognize that butterfly specialists in the past have been avid collectors of butterflies (Sullivan 1993; Yamaguchi 1993, pp. 1–66). However, neither the petition, nor the information within our files, indicates that there is continued or ongoing collection of the Leona’s little blue butterfly for commercial, recreational, scientific, or educational purposes. We also do not have information indicating that documented collections have had an adverse effect on the Leona’s little blue butterfly. Therefore, we find that the petition and the information within our files does not present substantial information to indicate that the petitioned action may be warranted due to disease or predation. However, we will further investigate the potential threat of disease or predation in our status review for this species.

D. The Inadequacy of Existing Regulatory Mechanisms

Information Provided in the Petition

The petition states that there are no specific existing regulatory mechanisms that currently protect the “unique requirements of the Leona’s little blue butterfly” (Xerces Society for Invertebrate Conservation 2010, p. 17). The petition states that the Service and USFS do not offer protective status to the Leona’s little blue butterfly or address the species within a conservation plan or a National Forest Plan (Xerces Society for Invertebrate Conservation 2010, p. 17). The petition also asserts that both agencies are and have been aware of the species and have funded surveys in the past to better understand the distribution of the species (Xerces Society for Invertebrate Conservation 2010, p. 17). Regarding State mechanisms, the petition notes that invertebrate species do not qualify for listing under the Oregon Endangered Species statute, and that the Oregon Department of Fish and Wildlife did not consider this species in its latest evaluation. Therefore, no State law offers any targeted protection to the Leona’s little blue butterfly (Xerces Society for Invertebrate Conservation 2010, p. 17). In addition, the petition states that the Oregon Board of Forestry does not provide any regulations that protect the Leona’s little blue butterfly on private lands (Xerces Society for Invertebrate Conservation 2010, p. 17). The petition notes that although The Klamath Tribes will own and manage the bulk of the known occupied habitat once a land acquisition under the Klamath Basin Restoration Agreement is complete, no protection is extended to the Leona’s little blue butterfly in the Klamath Forest Plan (Xerces Society for Invertebrate Conservation 2010, p. 17).

Evaluation of Information Provided in the Petition and Available in Service Files

While the petition cites several sources pertaining to minimum population sizes and the practice of population conservation of invertebrate species in order to avoid extinction, it does not provide any specific information regarding the impacts of predators or disease on the Leona’s little blue butterfly. In addition, while the petition lists the Asian lady beetle (Harmonia axyridis) as a possible predator of the Leona’s little blue butterfly (Xerces Society for Invertebrate Conservation 2010, p. 16).

E. Other Natural or Man-Made Factors Affecting Its Continued Existence

Information Provided in the Petition

The petition states that due to its “exceptionally limited range and small population size, the Leona’s little blue butterfly is uniquely susceptible to extinction from stochastic events” (Xerces Society for Invertebrate Conservation 2010, p. 17). In particular, the petition discusses the impacts of genetic inbreeding, droughts, and catastrophic fires on a small, geographically limited population (Xerces Society for Invertebrate Conservation 2010, p. 17). Such events, with no outside populations for re-colonization, could occur and lead to a loss of genetic variability or extermination of the species (Xerces Society for Invertebrate Conservation 2010, p. 17).

In addition, the petition states that six of the threats which could result in habitat loss or curtailment, including fire, timber production management, herbicides, cinder mining, the construction of a biomass facility, and livestock grazing, also have the ability to cause direct mortality of individuals. It also states that the application of insecticides could result in the death of individuals at all stages of their development. The petition claims that fire suppression and the subsequent conifer encroachment that is occurring in the Leona’s little blue butterfly habitat is increasing the fuel loads of the forest and could result in a catastrophic fire across the landscape (Xerces Society for Invertebrate Conservation 2010, p. 10). It states that such a fire could result in the extinction of the Leona’s little blue butterfly (Xerces Society for Invertebrate Conservation 2010, p. 10). Furthermore, while the petition recognizes the need for active management of the Leona’s little blue butterfly habitat, it states that the
impacts of intensified timber production on the Mazama Tree Farm may have a negative impact on the Leona’s little blue butterfly, especially if activities, such as trampling by personnel, piling of log slash, and burning of log piles, are completed without consideration of the Leona’s little blue butterfly distribution and biology (Xerces Society for Invertebrate Conservation 2010, p. 11).

Additionally, the petition discusses the use of three herbicides—chlorosulfuron, glyphosate, and triclopyr—and their direct and indirect impacts to the Leona’s little blue butterfly (Xerces Society for Invertebrate Conservation 2010, p. 14). The petition claims that chlorosulfuron, glyphosate, and triclopyr are the most commonly used herbicides in timber management and restoration projects and that these chemicals are known to delay the development of butterflies that feed on herbicide-treated plants (Xerces Society for Invertebrate Conservation 2010, p. 14). Also, the petition declares that the activities and heavy equipment associated with the exploration, drilling, and expansion processes associated with cinder mining have the ability to result in direct mortality of the Leona’s little blue butterfly (Xerces Society for Invertebrate Conservation 2010, p. 15).

The petition also states that a biomass energy facility may be developed by The Klamath Tribes within the Leona’s little blue butterfly habitat if the Mazama Tree Farm property is transferred to The Klamath Tribes. The petition claims that the construction of such a facility could result in direct mortality of individuals, ultimately driving the species to extinction (Xerces Society for Invertebrate Conservation 2010, p. 15). In addition, the petition cites the USFS Plan and The Klamath Tribes’ management plan, stating that both plans allow for livestock grazing on the Leona’s little blue butterfly habitat (Xerces Society for Invertebrate Conservation 2010, p. 16). While the petition notes the lack of knowledge of the impact of livestock grazing on the Leona’s little blue butterfly, it concludes that livestock grazing is incompatible with the management of the Leona’s little blue butterfly population because grazing can result in trampling of eggs, larvae, pupae, and adults (Xerces Society for Invertebrate Conservation 2010, pp. 15–16).

Finally, the petition lists three pesticides—diflubenzuron, carbaryl, and malathion—as being commonly used in Klamath County, Oregon, and states that they are toxic to the Leona’s little blue butterfly at various life stages (Xerces Society for Invertebrate Conservation 2010, pp. 11–12). The petition states that diflubenzuron (also known as dimilin) is commonly used on the Klamath Marsh National Wildlife Refuge (KMNWR) to control native grasshopper outbreaks and is highly toxic in small doses to Lepidoptera caterpillars (Xerces Society for Invertebrate Conservation 2010, p. 12). The petition cites diflubenzuron’s ability to affect butterflies at their larval stage by arresting the chitin synthesis process (Xerces Society for Invertebrate Conservation 2010, p. 12). The petition also asserts that carbaryl and malathion both attack the nervous systems of individuals and are highly toxic to terrestrial invertebrates at all life stages (Xerces Society for Invertebrate Conservation 2010, pp. 12–13). The petition asserts that these chemicals have the ability to affect the Leona’s little blue butterfly by direct application as well as by pesticide drift (Xerces Society for Invertebrate Conservation 2010, p. 13). The petition claims that small doses of pesticide are capable of reaching a distance of 6.2 mi (10 km) via pesticide drift during ground or aerial applications completed by the Service and the U.S. Department of Agriculture’s Animal and Plant Health Inspection Service (APHIS) (Xerces Society for Invertebrate Conservation 2010, pp. 11, 14).

Evaluation of Information Provided in the Petition and Available in Service Files

Having a small population size in and of itself will not ordinarily lead to population extinction (Ehrlich and Murphy 1987, p. 127). Observations of small populations of checkerspot butterflies (Euphydra editha) suggest that the populations can persist for numerous generations (Ehrlich and Murphy 1987, p. 127). In addition, after a population of checkerspot butterflies went through a genetic bottleneck, it continued to persist, suggesting that such effects may not be limiting factors for butterflies (Ehrlich and Murphy 1987, p. 127). Checkerspot butterflies have demonstrated the ability to increase their dispersal distance in dry years as well as in years with population explosions (Ehrlich and Murphy 1987, p. 127). However, Ehrlich and Murphy (1987, p. 127) state that small populations are particularly susceptible to extinction due to stochastic events. While the information in our files suggests that butterflies are adaptable and capable of persisting in small populations, we agree that a small, geographically limited population is more vulnerable to extinction due to stochastic events, such as the potential threat of catastrophic fire in the case of Leona’s little blue butterfly. Therefore, we have determined that the information provided in the petition and in our files presents substantial information that the petitioned action may be warranted due to stochastic events such as the potential threat of catastrophic fire.

A review of the information provided by the petition and within our files indicates that The Klamath Tribe intends to use controlled burns to manage habitat similar to the Leona’s little blue butterfly habitat (Johnson et al. 2008, pp. 23–24). The Klamath Forest Plan’s management of Leona’s little blue butterfly habitat is contingent on the future authorization of funding by the U.S. Congress to support The Klamath Tribes’ purchase of the Mazama Tree Farm property from Cascade Timberlands, LLC. There is no information to indicate that Cascade Timberlands, LLC, the current landowner, plans to use fire to manage Leona’s little blue butterfly habitat. Even though fires are rarely suppressed, controlled burns or lightning strike fires can escape their perimeters and burn across the landscape. The petition cites an article that recognizes the high potential for fire danger on the Mazama Tree Farm due to a high density of lodgepole pine (Milstein 2008). It is uncertain whether the portion of the 90,000-ac (36,422-ha) Mazama Tree Farm (Milstein 2008) that contains the Leona’s little blue butterfly habitat is at high risk of a catastrophic fire. However, a catastrophic fire could cause the direct loss of individuals and have a devastating effect on the butterfly population. Therefore, we have determined that the information provided in the petition and in our files concerning the effects of fire on the Leona’s little blue butterfly presents substantial information indicating that the petitioned action may be warranted due to the direct loss of individuals to fire.

It is unknown how intensive timber production impacts the Leona’s little blue butterfly. We recognize that the potential impacts of intensive timber production (piling of slash piles, burning piles, and trampling) could be detrimental to individuals if the Leona’s little blue butterfly is not taken into consideration prior to project initiation. However, we have no information to indicate that the current landowner, Cascade Timberlands, LLC, intends to resume timber extraction into the future. In addition, while there is information that indicates The Klamath Tribes’ proposed management for the Leona’s little blue butterfly habitat is timber extraction (Johnson et al. 2008, pp. 23–
90,000-ac (36,422-ha) Mazama Tree Farm property, and whether or not it might occur in the Leona’s little blue butterfly habitat, and thus have the potential to directly impact individuals. It is important to note that this proposed project cannot proceed until The Klamath Tribes’ receive funding from the U.S. Congress to purchase the property from Cascade Timberlands, LLC. Therefore, we do not have substantial information within our files to indicate the petitioned action may be warranted due to direct mortality from timber production. However, we will further evaluate information about this activity’s potential impact to the species in our status review.

While the petition provides references that support the negative effects of herbicides on invertebrates, a review of the references provided by the petition and the information within our files does not provide evidence that these chemicals are being applied to the habitat of the Leona’s little blue butterfly. Therefore, we have determined that the information provided in the petition and in our files concerning the effects of herbicides on the Leona’s little blue butterfly does not present substantial information indicating that the petitioned action may be warranted due to direct mortality of individuals. However, we will further evaluate information about this activity’s potential impact to the species in our status review.

A review of the information in our files and provided by the petition regarding cinder mines indicates that proposed activities associated with the exploration for cinder mines could be detrimental to the Leona’s little blue butterfly. Therefore, the Klamath Forest Plan will not be implemented until the U.S. Congress authorizes funding for the Klamath Tribes’ purchase of the Mazama Tree Farm property from Cascade Timberlands, LLC. Therefore, we do not have substantial information within our files to indicate the petitioned action may be warranted due to direct mortality from cinder mining activities. However, we will further evaluate information about this activity’s potential impact to the species in our status review.

The Klamath Forest Plan indicates that a 10-megawatt (MW) biomass facility would require a minimum of 7 ac (2.8 ha) for proper siting and 40 truckloads per day of material for fuel. The petition did not provide any information, nor do we have any information in our files about the proposed location of this facility on the 90,000-ac (36,422-ha) Mazama Tree Farm property, and whether or not it might occur in the Leona’s little blue butterfly habitat, and thus have the potential to directly impact individuals. It is important to note that this proposed project cannot proceed until The Klamath Tribes’ receive funding from the U.S. Congress to purchase the property from Cascade Timberlands, LLC. Therefore, there is not substantial information to indicate the petitioned action may be warranted due to direct mortality of individuals from the biomass facility construction and subsequent operations. However, we will further evaluate information about this activity’s potential impact to the species in our status review.

The USFS Plan allows for grazing within designated allotments on USFS land (USFS 1990, pp. 2–6). However, there is no information within the USFS Plan, or within our files, that indicates whether these allotments include the Leona’s little blue butterfly or its habitat. The USFS Plan does state that allotments will be managed to improve the condition of the range, and that the demand for grazing will be met only when it does not conflict with other uses, such as wildlife and recreational needs (USFS 1990, pp. 4–12). While the Klamath Forest Plan will allow for grazing on mule deer winter range, the Klamath Forest Plan’s application to the Leona’s little blue butterfly habitat is contingent on the future authorization of funding by the U.S. Congress to support The Klamath Tribes’ purchase of the Mazama Tree Farm property from Cascade Timberlands, LLC. There is no information within the petition or within our files that indicates that the current owner, Cascade Timberlands, LLC, or the USFS plan to allow grazing in the Leona’s little blue butterfly habitat. Therefore, there is not substantial information to indicate that the petitioned action may be warranted due to direct mortality associated with grazing. However, we will further evaluate information about this activity’s potential impact to the species in our status review.

A review of the information provided by the petition and within our files indicates that, when used to control pest species, insecticides such as diflubenzuron, carbaryl, and malathion can have a detrimental effect on non-target vertebrate and invertebrate species (Alston and Teppedino 2000, p. 13; Sample et al. 1993, p. 62); Cox 1993, pp. 31–34). A review of the Klamath Marsh National Wildlife Refuge Comprehensive Conservation Plan (KMNWR–CCP) revealed that, since 2004, the KMNWR no longer uses pesticides to remove clear-winged grasshoppers (Camnula pullicida (Scudder)) unless the population exceeds the economic thresholds of 14 to 24 individuals per square yard (USFWS 2010, p. 68). Since 2004, the KMNWR has used pesticides to remove grasshoppers in the years 2005 and 2007 (USFWS 2010, p. 68). In addition, the KMNWR no longer uses malathion or carbaryl for the removal of pest species like clear-winged grasshoppers, but instead uses diflubenzuron (USFWS 2010, p. 68). To minimize exposure impacts, the KMNWR applies the chemical to the ground from an all-terrain vehicle utilizing a method known as Reduced Area Agent Treatment Strategy (RAATS) (USFWS 2010, p. 68). This method not only reduces the amount of chemicals used, but it also reduces the area that is impacted both by direct application and pesticide drift. A review of a map of the KMNWR–CCP (2010, p. 69) depicting the general locations of clear-winged grasshopper outbreaks in 2007, shows a straight-line distance to the nearest known Leona’s little blue butterfly location to be over 7 mi (11.3 km). Disregarding the RAATS application method and its associated minimization methods, the distance of 7 mi (11.3 km) is still beyond the petition’s assumed worst case scenario pesticide drift distance of 6.2 mi (10 km) (Excels Society for Invertebrate Conservation 2010, p. 14). Based on the information provided in the petition and our files, there is not substantial information to indicate that the petitioned action may be warranted due to direct mortality of individuals from direct application of pesticides on KMNWR or pesticide drift from KMNWR. However, we will further evaluate information about this activity’s potential impact to the species in our status review.

Private landowners near the KMNWR, and in cooperation with APHIS, use malathion, diflubenzuron, and carbaryl for grasshopper control (APHIS 2009, pp. 1, 12). This action occurs primarily on rangelands in Klamath County, Oregon, and is focused on grassland and shrublands while excluding forest (APHIS 2009, pp. 15–16). A review of our files regarding APHIS’ grasshopper and Mormon cricket (Anabrus simplex) suppression program shows several conservation measures designed to minimize the impact of pesticides on listed species and sensitive areas. Regardless of the mode of application, the Environmental Monitoring Plan states that APHIS is required to use buffers around these listed species and sensitive areas such as residential communities, organic crops, and surface...
water bodies (APHIS 2010, p. 1). A review of aerial photos within our files shows that the nearest known Leona’s little blue butterfly locations and habitat are utilizing APHIS’ methods. As a result, the impacts of private-landangel pesticide application to the Leona’s little blue butterfly are unknown. Therefore, there is not substantial information to indicate that the petitioned action may be warranted due to direct mortality by the application of pesticides by the KMNWR, APHIS, and private landowners in Klamath County, Oregon. However, we will further evaluate information about this activity’s potential impact to the species in our status review.

In summary, we find that the information provided in the petition, as well as other information in our files, presents substantial scientific and commercial information indicating that the petitioned action may be warranted due to other natural and manmade factors relating to limited range and small population size and vulnerability to stochastic events. We will further evaluate information relating to events and activities addressed under this factor in our status review of the species.

Finding
On the basis of our determination under section 4(b)(3)(A) of the Act, we find that the petition presents substantial scientific or commercial information indicating that listing the Leona’s little blue butterfly throughout its entire range may be warranted. This finding is based on information provided under Factors A (present or threatened destruction, modification, or curtailment of the species’ habitat or range) and E (other natural or manmade factors affecting the species’ continued existence). Specifically, we find that the following may pose threats to the Leona’s little blue butterfly throughout all or a significant portion of its range, such that the petitioned action may be warranted: The encroachment of lodgepole pine trees into the Leona’s little blue butterfly habitat and the loss of habitat and individuals from catastrophic fire and stochastic events. We determine that the information provided under Factors B (overutilization for commercial, recreational, scientific or educational purposes), C (disease or predation), and D (the inadequacy of existing regulatory mechanisms) is not substantial. However, we will further evaluate all information related to these factors in our status review of the species.

Because we have found that the petition presents substantial information indicating that listing the Leona’s little blue butterfly may be warranted, we are initiating a status review to determine whether listing the Leona’s little blue butterfly under the Act is warranted.

The “substantial information” standard for a 90-day finding differs from the Act’s “best scientific and commercial data” standard that applies to a status review to determine whether a petitioned action is warranted. A 90-day finding does not constitute a status review under the Act. In a 12-month finding, we will determine whether a petitioned action is warranted after we have completed a thorough status review of the species, which is conducted following a substantial 90-day finding. Because the Act’s standards for 90-day and 12-month findings are different, as described above, a substantial 90-day finding does not mean that the 12-month finding will result in a warranted finding.

References Cited
A complete list of references cited is available on the Internet at http://www.regulations.gov and upon request from the Klamath Falls Fish and Wildlife Office (see FOR FURTHER INFORMATION CONTACT).

Author
The primary authors of this notice are the staff members of the Klamath Falls Fish and Wildlife Office.

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

Dated: August 4, 2011.

David Cottingham,
Acting Director, U.S. Fish and Wildlife Service.

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DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

50 CFR Part 622
[Docket No. 110606316–1463–01]
RIN 0648–BB15

Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Reef Fish Fishery of the Gulf of Mexico; Amendment 26 and Amendment 29 Supplement

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