DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AT91

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Fender's blue butterfly (Icaricia icarioides fenderi), Lupinus sulphureus ssp. kincaidii (Kincaid's lupine), and Erigeron decumbens var. decumbens (Willamette daisy)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), are designating critical habitat for the Fender's blue butterfly (*Icaricia icarioides fenderi*), *Lupinus sulphureus* ssp. *kincaidii* (Kincaid's lupine), and *Erigeron decumbens* var. *decumbens* (Willamette daisy) pursuant to the Endangered Species Act of 1973, as amended (Act). Approximately 3,010 acres (ac) (1,218 hectares (ha)) for Fender's blue butterfly in Benton, Lane, Polk, and Yamhill Counties, Oregon; 585 ac (237 ha) for *L. sulphureus* ssp. *kincaidii* in Benton, Lane, Polk, and Yamhill Counties, Oregon, and Lewis County, Washington; and 718 ac (291 ha) for *E. decumbens* var. *decumbens* in Benton, Lane, Linn, Marion, and Polk Counties, Oregon, fall within the boundaries of the critical habitat designation.

DATES: This rule becomes effective on November 30, 2006.

ADDRESSES: Comments and materials received, as well as supporting documentation used in the preparation of this final rule, will be available for public inspection, by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Portland Fish and Wildlife Office, 2600 SE 98th Ave., Suite 100, Portland, OR 97266 (telephone (503) 231–6179). The final rule, economic analysis, and map will also be available via the Internet at *http://www.fws.gov/oregonfwo/Species/ESA-Actions/WillValleyPage.asp.*

FOR FURTHER INFORMATION CONTACT: Kemper McMaster, Field Supervisor, U.S. Fish and Wildlife Service, Portland Fish and Wildlife Office, 2600 SE 98th Ave., Suite 100, Portland, OR 97266 (telephone 503/231–6179; facsimile 503/231–6195).

SUPPLEMENTARY INFORMATION:

Role of Critical Habitat in Actual Practice of Administering and Implementing the Act

Attention to and protection of habitat is paramount to successful conservation actions. The role that designation of critical habitat plays in protecting habitat of listed species, however, is often misunderstood. As discussed in more detail below in the discussion of exclusions under ESA section 4(b)(2), there are significant limitations on the regulatory effect of critical habitat designation under ESA section 7(a)(2). In brief, (1) designation provides additional protection to habitat only where there is a Federal nexus; (2) the protection is relevant only when, in the absence of designation, destruction or adverse modification of the critical habitat would in fact take place (in other words, other statutory or regulatory protections, policies, or other factors relevant to agency decision-making would not prevent the destruction or adverse modification); and (3) designation of critical habitat triggers the prohibition of destruction or adverse modification of that habitat, but it does not require specific actions to restore or improve habitat.

As of September 22, 2006, only 475 species, or 36 percent of the 1,310 listed species in the U.S. under the jurisdiction of the Service, have designated critical habitat. We address the habitat needs of all 1,311 listed species through conservation mechanisms such as listing, section 7 consultations, the Section 4 recovery planning process, the Section 9 protective prohibitions of unauthorized take, Section 6 funding to the States, the Section 10 incidental take permit process, and cooperative, nonregulatory efforts with private landowners. The Service believes that it is these measures that may make the difference between extinction and survival for many species.

In considering exclusions of areas originally proposed for designation, we evaluated the benefits of designation in light of *Gifford Pinchot Task Force* v. *United States Fish and Wildlife Service.* In that case, the Ninth Circuit invalidated the Service's regulation defining ''destruction or adverse modification of critical habitat.'' In response, on December 9, 2004, the Director issued guidance to be considered in making section 7 adverse modification determinations. This critical habitat designation does not use the invalidated regulation in our consideration of the benefits of including areas in this final designation. The Service will carefully manage future consultations that analyze impacts to designated critical habitat, particularly those that appear to be resulting in an adverse modification determination. Such consultations will be reviewed by the Regional Office prior to finalizing to ensure that an adequate analysis has been conducted that is informed by the Director's guidance.

On the other hand, to the extent that designation of critical habitat provides protection, that protection can come at significant social and economic cost. In addition, the mere administrative process of designating critical habitat is expensive, time-consuming, and controversial. The current statutory framework of critical habitat, combined with past judicial interpretations of the statute, make critical habitat the subject of excessive litigation. As a result, critical habitat designations are driven by litigation and courts rather than biology, and made at a time and under a time frame that limits our ability to obtain and evaluate the scientific and other information required to make the designation most meaningful.

In light of these circumstances, the Service believes that additional agency discretion would allow our focus to return to those actions that provide the greatest benefit to the species most in need of protection.

Procedural and Resource Difficulties in Designating Critical Habitat

We have been inundated with lawsuits for our failure to designate critical habitat, and we face a growing number of lawsuits challenging critical habitat determinations once they are made. These lawsuits have subjected the Service to an ever-increasing series of court orders and court-approved settlement agreements, compliance with which now consumes nearly the entire listing program budget. This leaves the Service with little ability to prioritize its activities to direct scarce listing resources to the listing program actions with the most biologically urgent species conservation needs.

The consequence of the critical habitat litigation activity is that limited listing funds are used to defend active lawsuits, to respond to Notices of Intent (NOIs) to sue relative to critical habitat, and to comply with the growing number of adverse court orders. As a result, listing petition responses, the Service's own proposals to list critically imperiled species, and final listing determinations on existing proposals are all significantly delayed.

The accelerated schedules of court-ordered designations have left the Service with limited ability to provide for public participation or to ensure a

defect-free rulemaking process before making decisions on listing and critical habitat proposals, due to the risks associated with noncompliance with judicially imposed deadlines. This in turn fosters a second round of litigation in which those who fear adverse impacts from critical habitat designations challenge those designations. The cycle of litigation appears endless, and is very expensive, thus diverting resources from conservation actions that may provide relatively more benefit to imperiled species.

The costs resulting from the designation include legal costs; the cost of preparation and publication of the designation; the analysis of the economic effects and the cost of requesting and responding to public comment; and in some cases the costs of compliance with the National Environmental Policy Act (NEPA). These costs, which are not required for many other conservation actions, directly reduce the funds available for direct and tangible conservation actions.

Background

In this rule, it is our intent to discuss only those topics directly relevant to the designation of critical habitat. For more information on the Fender's blue butterfly, *Lupinus sulphureus* ssp. *Kincaidii,* and *Erigeron decumbens* var. *decumbens,* refer to the final listing rule published in the **Federal Register** on January 25, 2000 (65 FR 3875), or the proposed critical habitat rule published in the **Federal Register** on November 2, 2005 (70 FR 66492). Provided below is a general overview of the habitat requirements of Fender's blue butterfly, *L. sulphureus* ssp. *Kincaidii,* and *E. decumbens* var. *decumbens.*

These species occur in wet prairie, upland prairie, and oak savanna habitats (collectively referred to as prairie habitat) that were once more widely distributed across western Oregon and southwestern Washington (Clark 1996, p. 8; Schultz *et al.* 2003, p. 69; Wilson *et al.* 2003, p. 79). Prairie habitat has been reduced to less than one percent of pre-settlement distribution (Hammond and Wilson 1993, p. 2), making the ecosystem among the most endangered in the United States (Noss *et al.* 1995, p. 67). The decline in these habitats and their increased fragmentation have led to the decline of many native prairie plants and animals (Wilson 1998a, p. 2 and 1998b, p. 1). Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii,* and *Erigeron decumbens* var. *decumbens* are among the rarest of the native species dependent on this unique habitat type and are known to co-occur within the boundaries of some remnant prairie locations.

Various descriptions of prairie habitats have been published over the years and they usually vary in their division of communities and the dominant species present in each community (Jackson 1996, p. 2). We describe two habitat types, wet prairie and upland prairie, and define these by describing the plant communities reported co-occurring with the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii,* and *Erigeron decumbens* var. *decumbens.*

Upland prairie (including oak savanna) habitat occurs on well-drained soils and is characterized by a short grass stature dominated by native bunch grasses and forbs (Wilson 1998a, p. 2; Wilson *et al.* 2003, p. 79). Wet prairies are seasonally flooded ecosystems occurring on both poorly drained soil types and well-drained soils where shallow bedrock impedes drainage (Wilson 1998b, p. 1). Although wet prairie soils dry out during typical summer droughts, they have soils with hydric characteristics (*i.e.*, soils formed under conditions of water saturation, flooding, or ponding long enough to develop anaerobic conditions) that support facultative or obligate wetland plant species (Wilson 1998b, p. 1).

Fender's blue butterfly and Lupinus sulphureus ssp. kincaidii

The Fender's blue butterfly and *Lupinus sulphureus* ssp. *kincaidii* populations primarily occur on early seral (one stage in a sequential progression) upland prairie habitat with plant species including but not limited to: *Achillea millefolium* (common yarrow), *Aster hallii* (Hall's aster), *Brodiaea congesta* (Brodiaea), *Bromus carinatus* (California brome), *Calochortus tolmiei* (Cat's ear, Tolmie star-tulip), *Carex tumulicola* (splitawn sedge), *Cirsium callilepis* (fewleaf thistle), *Danthonia californica* (California oatgrass), *Elymus glaucus* (blue wildrye), *Eriophyllum lanatum* (common woolly sunflower, Oregon sunshine), *Festuca californica* (California fescue), *Festuca roemeri* (Roemer's fescue), *Fragaria virginiana* (Virginia strawberry), *Geranium oreganum* (Oregon geranium), *Grindelia integrifolia* (gumweed), *Lomatium nudicaule* (barestemmed desert parsley), *Luzula campestris* (wood rush), *Prunella vulgaris* (common selfheal), *Sanicula crassicaulis* (Pacific blacksnakeroot), *Sidalcea virgata* (rose checkermallow and dwarf checkerbloom), *Silene hookeri* (Hooker's silene), and *Wyethia angustifolia* (California compassplant) (Wilson 1998b, pp. 2–7; Kaye *in litt.*a, p. 2). Many of these associated species are considered indicators for upland prairie habitat (Schultz *et al.* 2003, p. 65; Wilson *et al.* 2003, p. 79).

The Fender's blue butterfly habitat requirements include a larval host plant (*i.e.*, *Lupinus sulphureus* ssp. *kincaidii*, *L. arbustus* (spurred lupine), and *L. albicaulis* (sickle-keeled lupine), native forbs for adult nectar sources, and native grasses that comprise short-grass upland prairies (Wilson *et al.* 1997, p. 3; Schultz 2001, p. 1008). These requirements are considered essential to the survival and conservation of these species (Wilson *et al.* 2003, p. 79). *Lupinus sulphureus* ssp. *kincaidii* is a primary larval host plant for the Fender's blue butterfly and is utilized by the butterfly for oviposition (laying eggs) and as a larval food source (Schultz *et al.* 2003, p. 64; Wilson *et al.* 2003, pp. 73, 77). Adult Fender's blue butterflies use nectar sources in wet prairie habitat that occur near their host plant habitat. The Fender's blue butterfly is more vigorous in full sun conditions (Schultz *et al.* 2003, p. 68), which are important for adult butterflies to seek out nectar, search for a mate, oviposit, and disperse (Severns in prep. Manuscript, pp. 1, 3, 13–19). The Fender's blue butterfly appears to have limited dispersal ability, with most dispersing adults likely remaining within approximately 1.2 miles (mi) (2 kilometers (km)) of their natal lupine patch (Schultz 1998, p. 284). The maximum dispersal distance reported for the Fender's blue butterfly is 2 mi (3.2 km) (Severns 2004, p. 4).

Lupinus sulphureus ssp. *kincaidii* habitat is generally described as prairie or open areas, and this species is typically unable to survive prolonged periods of shade (Wilson *et al.* 2003, p. 79). However, populations of *L. sulphureus* ssp. *kincaidii* occurring in Douglas County, Oregon, have been documented as occurring in atypical habitat for the species (Barnes 2004, p. 102). The Douglas County populations are in wooded areas with canopy cover ranging from 50 to 80 percent (Barnes 2004, p. 102) and dominated by species such as: *Arbutus menziesii* (Pacific madrone), *Arctostaphylos columbiana* (hairy manzanita), *Calocedrus decurrens* (incense cedar), *Calochortus tolmiei* (Cat's ear, Tolmie star-tulip), *Canadanthus modestus* (giant mountain aster), *Ceanothus cuneatusa* (buckbrush), *Cerastium arvense* (field chickweed), *Cynosurus echinatus* (bristly dogstail grass), *Daucus carota* (Queen Anne's Lace, wild carrot), *Dichelostemma capitatum* (bluedicks), *Festuca californica* (California fescue),

Festuca roemeri (Roemer's fescue), *Fragaria vesca* (woodland strawberry), *Hieracium albiflorum* (white hawkweed), *Holodiscus discolor* (oceanspray), *Lathyrus polyphyllus* (leafy pea), *Lonicera hispidula* (pink honeysuckle), *Pinus ponderosa* (ponderosa pine), *Pseudotsuga menziesii* (Douglas fir, Doug fir), *Quercus kelloggii* (California black oak), *Rubus ursinus* (California blackberry), *Sanicula crassicaulis* (Pacific blacksnakeroot), *Symphoricarpos albus* (snowberry), *Torilis arvensis* (spreading hedgeparsley), *Toxicodendron diversilobum* (poison oak), *Vicia americana* (American vetch), and *Whipplea modesta* (common whipplea) (Friedman *in litt.*a, p.1; Friedman *in litt.*b, p.1).

Lupinus sulphureus ssp. *kincaidii* is a low-growing herbaceous perennial with large individual plant clones (Wilson *et al.* 2003, p. 73). Excavation efforts indicate that above-ground vegetation 33 feet (10 m) or more apart can be interconnected by below-ground stems. The species is long-lived with lateral growth rates, suggesting that some plants could be several decades old (Wilson *et al.* 2003, p. 73). *Lupinus sulphureus* ssp. *kincaidii* clones are scattered in patches across the prairie habitat and intermixed with several other prairie-associated plant species. *Lupinus sulphureus* ssp. *kincaidii* is a primary larval host plant for the Fender's blue butterfly and is utilized by the butterfly for oviposition (laying eggs) and as a larval food source (Schultz *et al.* 2003, p. 64; Wilson *et al.* 2003, pp. 73, 77).

Erigeron decumbens var. decumbens

Erigeron decumbens var. *decumbens* grows in wet prairies occurring on relatively impermeable soils. Wet prairie habitat supporting *Erigeron decumbens* var. *decumbens* is typically defined by the plant species co-occurring with the plant including, but not limited to: *Anthoxanthum odoratum* (sweet vernalgrass), *Aster curtus* (white-top aster), *Aster hallii* (Hall's aster), *Brodiaea coronaria* (crown brodiaea), Camassia quamash (common camas), *Danthonia californica* (California oatgrass), *Deschampsia caespitosa* (tufted hairgrass), *Festuca arundinacea* (tall fescue), *Grindelia integrifolia* (gumweed), *Holcus lanatus* (velvet grass), *Horkelia congesta* (Sierra horkelia), *Saxifraga integrifolia* (bog saxifrage), *Lomatium bradshawii* (Bradshaw's lomatium), *Luzula campestris* (wood rush), *Panicum capillare* (witchgrass), *Potentilla gracilis* (slender cinquefoil), *Prunella vulgaris* (common selfheal) and *Sisyrinchium angustifolium* (narrowleaf blue-eyed grass) (Clark *et al.* 1993, p. 18; Clark *et al.* 1995a, p. 1, 1995b, p. 1; Jackson 1996, p. 14; Clark 2000, p. 3). *Erigeron decumbens* var. *decumbens* also grows in upland prairies as previously described (Clark *et al.* 1993, p. 18; Clark *et al.* 1995a, p. 1; Jackson 1996, p. 18; Clark 2000, p. 3).

Erigeron decumbens var. *decumbens* typically occurs where woody cover is nearly absent and where herbaceous vegetation cover is low in stature relative to the surrounding areas (Clark *et al.* 1993, pp. 21, 22). *Erigeron decumbens* var. *decumbens* is a low-growing (6–24 inches (in) (15–60 centimeters (cm))) herbaceous perennial occurring in clumps of genetically identical ramets (*i.e.*, a vegetatively reproduced copy of the parent plant) that are typically patchy in distribution across the prairie habitat (Clark *et al.* 1993, p. 23). These plants are intermixed with several associated species which are considered indicator species for the prairie habitat (Clark *et al.* 1993, p. 18).

Fender's blue butterfly, *Lupinus sulphureus* ssp. *Kincaidii*, and *Erigeron decumbens* var. *decumbens* populations historically functioned as metapopulations in the more widespread prairie habitat (Jackson 1996, p. 20; Liston *et al.* 1995, p. 318; Schultz 1998, p. 285; and Severns 2003a, p. 221). Currently, most populations of these species are isolated from neighboring populations, and interactions between populations are thought to be rare events (Jackson 1996, p. 6; Schultz 1998, p. 286; Severns 2003a, p. 222). Recovery will require reestablishing connected populations by restoring habitat networks (Kaye, *in litt.*b, 2005, p. 1; Schultz *et al.* 2003, p. 61; Severns 2003a, p. 227). In this document, we define ''habitat networks'' as prairie habitat that can support connected populations and function as metapopulations.

Previous Federal Actions

On April 23, 2003, a complaint was filed against the Service (CV 03 513 JE (D. Or.)) for failure to designate critical habitat for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *Kincaidii*, and *Erigeron decumbens* var. *decumbens*. In December 2003, a settlement agreement resulted in a schedule for the Service to submit a proposed critical habitat rule to the **Federal Register** by October 15, 2005, and a final rule by October 15, 2006.

On November 2, 2005, a proposed rule to designate critical habitat for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *Kincaidii*, and *Erigeron decumbens* var. *decumbens* was published in the **Federal Register** (70 FR 66492). The initial comment period closed on January 3, 2006. On April 21, 2006, we published a notice in the **Federal Register** announcing the reopening of the comment period and the public hearing for the proposed critical habitat for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *Kincaidii*, and *Erigeron decumbens* var. *decumbens* (71 FR 20636). On June 15, 2006, we published a notice in the **Federal Register** announcing the availability of the draft economic analysis of the proposed designation of critical habitat for these species and a reopening of the public comment period (71 FR 34566). The third public comment period closed on June 30, 2006. For more information on previous Federal actions concerning Fender's blue butterfly, *L. sulphureus* ssp. *Kincaidii*, and *E. decumbens* var. *decumbens* refer to the November 2, 2005, proposed rule (70 FR 66492).

Summary of Comments and Recommendations

We requested written comments from the public on the proposed designation of critical habitat for Fender's blue butterfly, *Lupinus sulphureus* ssp. *Kincaidii*, and *Erigeron decumbens* var. *decumbens* in the proposed rule published on November 2, 2005 (70 FR 66492). We also contacted appropriate Federal, State, and local agencies; scientific organizations; and other interested parties and invited them to comment on the proposed rule. In addition, we held a public hearing on May 9, 2006, in Corvallis, Oregon. No comments were received during the public hearing.

During the comment period that opened on November 2, 2005, and closed on January 3, 2006, we received 72 comments directly addressing the proposed critical habitat designation: 5 from peer reviewers, 3 from Federal agencies, and 64 from organizations or individuals. During the comment period that opened on April 21, 2006, and closed on May 19, 2006, we received an additional 11 comments directly addressing the proposed critical habitat designation: one from a peer reviewer, one from a Federal agency, and nine from organizations or individuals. During the comment period that opened on June 15, 2006, and closed on June 30, 2006, we received 12 comments directly addressing the proposed critical habitat designation and the draft economic analysis. Of these latter comments, one was from a peer reviewer and 11 were from organizations or individuals. The received comments were grouped into

six general categories specifically relating to the proposed critical habitat designation or draft economic analysis for Fender's blue butterfly, *L. sulphureus* ssp. *Kincaidii*, and *E. decumbens* var. *decumbens.* The comments are addressed in the following summary and incorporated into the final rule as appropriate.

Peer Review

In accordance with our peer review policy published on July 1, 1994 (59 FR 34270), we solicited expert opinions from eight knowledgeable individuals with scientific expertise that included familiarity with the species, the geographic region in which the species occur, and conservation biology principles. Five of the eight peer reviewers responded. The peer reviewers generally concurred with our methods and conclusions and provided additional information, clarifications, and suggestions to improve the final critical habitat rule.

We reviewed all comments received from the peer reviewers and the public for substantive issues and new information regarding critical habitat for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *Kincaidii*, and *Erigeron decumbens* var. *decumbens.* Peer review comments are addressed in the following summary and incorporated into the final rule as appropriate.

Peer Review Comments Related to Life History, Habitat Characteristics, and Ecological Considerations

1. *Comment:* During the 2005 field season, one peer reviewer reported finding a Fender's blue butterfly population that has become successfully established at the Deer Creek County Park in Yamhill County within a large patch of *Lupinus sulphureus* ssp. *Kincaidii*, and has been growing and expanding rapidly over the past few years. The peer reviewer recommended adding this site to the critical habitat designation in association with the Gopher Valley metapopulation since the site is only 1 mile (1.6 kilometers) south of units FBB–2 and KL–3.

Our Response: At the time we proposed critical habitat, the best scientific information available identified 0.2 acre (ac) (0.1 hectare (ha)) of *Lupinus sulphureus* ssp. *kincaidii* habitat occuring in Deer Creek County Park. We did not have information describing available surrounding prairie habitat; therefore, it did not meet our criteria at the time of our proposal. We have been unable to verify that these sites meet our criteria.

2. *Comment:* One peer reviewer recommended deleting the critical habitat unit on Monmouth Highway (FBB–6B) within unit FBB–6 in Polk County. This peer reviewer stated that this Fender's blue butterfly population is located on a disturbed agricultural field, which has been replanted with young conifer trees. The reviewer believes that eventually the trees will out-compete the existing lupine species and eliminate the butterfly from the site.

Our Response: FBB–6B meets our criteria for inclusion because it is the largest known population of Fender's blue butterfly in this portion of the species' range and contains primary constituent elements essential to the conservation of the species. We do not know the extent of tree planting on the site or how much habitat may be affected; however the site does provide PCEs despite the fact it has been planted to some degree. Other sites that were planted with young conifers for commercial Christmas tree farms in the early 1990's still support butterflies with recently reported increasing populations. Periodic Christmas tree harvest may act as a disturbance that opens the habitat and allows the lupine to spread back into these areas with butterfly populations increasing in response to the additional available habitat. These are disturbance dependent species. Since butterfly numbers at this site have been estimated at substantially higher numbers from 2003 to 2005, we feel that this site should remain in the designation. During the development of the proposed rule, another peer reviewer stated that this site could serve as an important stepping-stone habitat (*see* Schultz 1998, p. 291) and enhance the genetic exchange among Fender's blue butterfly populations at other sites. Additionally, FBB–6A provides *Lupinus sulphureus* ssp. *kincaidii* habitat within the butterfly's average dispersal distance, which may serve as a stepping stone between FBB–6 and FBB–5. This unit has the features that are essential to the conservation of the butterfly and is, therefore, included in this final designation.

3. *Comment:* One peer reviewer recommended that the maximum dispersal distance for Fender's blue butterfly be changed to 1.9 mi (3.0 km) based on an observed colonization event.

Our Response: We are using a Fender's blue butterfly average adult lifetime movement distance of 1.2 mi (2 km) based on a behavioral study by Schultz (1998, pp. 287–290). We acknowledge that the Fender's blue butterfly is capable of moving greater distances, but data with which to determine how frequently such movements may occur is currently lacking. Therefore, based on the above study, we retained the use of the 1.2 mi (2 km) distance as a more typical and conservative estimate of adult butterfly movement.

4. *Comment:* One peer reviewer wanted us to clarify actions that would further isolate populations of Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens* as discussed under Section 7 Consultation in the proposed rule. The peer reviewer stated that current habitats for these species are essentially isolated and data for the two plants species are unavailable to determine how the listed actions would cause further isolation, especially associated with pollinator travel and seed dispersal distances.

Our Response: In the proposed rule, we stated that if critical habitat units for the plants are located more than 5 mi (8 km) apart, or if critical habitat units for Fender's blue butterfly are located more than 1.2 mi (2 km) apart, then actions in the areas separating the units would not be considered to further isolate the species.

5. Comment: One peer reviewer stated that we should include the pollinators for *Erigeron decumbens* var. *decumbens* as a primary constituent element similar to what we did for *Lupinus sulphureus* ssp. *kincaidii.*

Our Response: There is very little data that has been published or reported in the literature on this species, including requirements for reproduction. Although insect pollination has been documented as facilitating sexual reproduction, it has not been reported as essential to the reproduction of *Erigeron decumbens* var. *decumbens.* Therefore, because we were not able to determine the specific pollinator essential to the conservation of the species, we did not include the presence of insect outcrossing pollinators as a primary constituent element for the species.

Comments From the Public Related to Life History, Habitat Characteristics, and Ecological Considerations

6. *Comment:* An increase in urbanization within the West Eugene area could create barriers to dispersal for the Fender's blue butterfly between core and satellite areas.

Our Response: We agree that increased urbanization may have direct and indirect effects (*e.g.*, mortality from vehicle collisions and increased habitat loss) on Fender's blue butterfly dispersal, but specific scientific studies addressing the effects of urbanization on Fender's blue butterfly dispersal are not available. We will evaluate potential

future impacts to the designated critical habitat on specific projects through the section 7 consultation process.

7. *Comment:* A number of commenters stated that the effects of climate variability, natural flooding, and water management are not taken into consideration in the designation. Specifically, these events may result in hydrologic changes; accordingly, the critical habitat designation should cover a broader range of topographic elevation. Specific recommendations were made to include additional habitat for *Erigeron decumbens* var. *decumbens* to address a variety of concerns, such as elevation, topography, and slope.

Our Response: While we agree that climate variability could play a role in future distributions of the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens*, we are not aware of scientific information that specifically addresses the effects of these events on these species or how to modify the designation to address these potential threats. We worked with local land managers and scientific experts to identify the extent of prairie habitat that supported *E. decumbens* var. *decumbens* populations, and that also met our criteria for designation.

8. *Comment:* Forest succession between core populations of Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens* could create smaller genetically isolated populations that would put them at a greater risk of local extirpation from the lack of genetic diversity. To address this concern, the commenter recommended designating lupine patches for butterfly core areas with recovery management criteria to reduce intervening forest or ensure open prairie corridors are available through the forest. Additionally, the commenter was concerned about the uncertainty of lake bays as barriers to butterfly dispersal.

Our Response: Gene flow among populations of the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens* could be partially or completely restricted depending on the degree of intervening forest and the size of a given lake bay. The commenter cited a personal communication with peer reviewer Paul Severns, documenting Severns' observation of Fender's blue butterflies flying over tall oak trees, which further shows the uncertainty of this potential risk. To our knowledge, there are no currently available scientific studies that have been completed for these species to further our understanding of this potential gene flow issue. For the Fender's blue butterfly, McIntire *et al.* (2006, p. 27) states that they do not know butterfly response to barriers such as woodlands, light industrial development, and roads. Therefore, they do not know the effects these elements may have on dispersal. McIntire *et al.* (2006, p. 27) notes that if elements such as woodlands or topography change butterfly movement or mortality, then connectivity would likely be affected. For these reasons, researchers are currently undertaking field studies to estimate these potential effects. However, as these studies are not yet complete, we cannot rely on them for this designation.

9. *Comment:* The proposed critical habitat stated that land within the Willamette Valley was ''subjected to fire suppression,'' which assumes that naturally occurring fires routinely burned in the valley and were suppressed by humans. To the contrary, the commenter believes that Native Americans converted the valley to agricultural lands when they began routinely burning to enhance the growth of harvestable food crops. This commenter stated that without human intervention, Fender's blue butterfly habitat would not have existed to any great extent and wanted to know what scientific evidence is available to prove that the butterfly was once more widely distributed in the Willamette Valley.

Our Response: Based on information in the final listing rule for the Fender's blue butterfly (65 FR 3875), the precise historic distribution of the butterfly is unknown due to limited information collected on this species prior to its description in 1931. However, early records indicate that before European settlement, the landscape of the Willamette Valley was largely an open expanse of prairie and savannah habitat (Altman *et al.* 2001, p. 262; Franklin and Dyrness 1973, p. 119). Given the greater amount of upland prairie patches, we assumed that the butterfly and *Lupinus sulphureus* ssp. *kincaidii* were also more widely distributed (Schultz 1998, p. 290–291; Wilson *et al.* 2003, p. 79). However, as stated previously, we do not know the historic distribution of these species, and it is possible that distribution was always patchy. This assumption is independent of whether prairie habitats were created or maintained under natural or human-induced conditions.

Comments From the Public Related to Critical Habitat, Primary Constituent Elements, and Methodology

10. *Comment:* Several commenters recommended that we designate multiple stepping-stone pathways for Fender's blue butterflies to ensure connectivity among critical habitat units and that we designate additional large core areas to ensure that some of the areas achieve stable butterfly populations. Additionally, commenters were concerned about the habitat condition of specific units designated in West Eugene. One commenter suggested specific sites for inclusion in West Eugene to address the following concerns: Stepping-stone redundancy, climatic variability, connectivity, elevation diversity, and population expansion. The commenters also suggested using a rule set for selecting habitats based on fine scale sub-watersheds.

Our Response: We used the best available scientific information and included occupied Fender's blue butterfly habitat identified as having the features that are essential for re-establishing a viable, connected metapopulation in the Eugene, Oregon area (McIntire *et al.* 2006, in review, pp. 20–22). Although we recognize that additional habitat may further contribute to recovery, our best available information (McIntire *et al.* 2006, in review, p. 20–22) does not identify the commenter's suggested areas as appropriate for designation as critical habitat for the Fender's blue butterfly. Outside of Eugene, Oregon, the best available information is not sufficient to identify stepping-stone pathways, thus, none were designated. Additional *Lupinus sulphureus* ssp. *kincaidii* habitat will likely be needed for recovery; however, we are unaware of any additional lupine patches that meet the minimum patch size within the pollinator distance criteria. The best available scientific information (Gisler *et al., in litt.,* 2005, pp. 4, 5) defines criteria without regard to sub-watershed.

11. *Comment:* Several commenters stated that designated *Lupinus sulphureus* ssp. *kincaidii* patches should be closer together (1.2 mi (2 km)) to allow for more frequent cross-pollination between patches by native pollinators.

Our Response: We included occupied *Lupinus sulphureus* ssp. *kincaidii* sites that are within 5 mi (8 km) (based on the maximum flight distance of the non-native honeybee) of a lupine core area and that met our minimum patch size of 0.25 ac (0.1 ha). By using the 5 mi (8 km) distance, we included lupine patches that are within 1.2 mi (2 km) of each other.

12. *Comment:* We failed to designate sufficient critical habitat that would provide *Lupinus sulphureus* ssp.

kincaidii the ability to colonize other areas, especially in response to threats from predation, parasites, and invasive plant species. One of the commenters made specific recommendations for the inclusion of unoccupied and occupied *L. sulphureus* ssp. *kincaidii* patches in the critical habitat designation to allow for increased lupine succession, regeneration, population stabilization, topographic relief, and improved pollination.

Our Response: We included the prairie habitat occupied by *Lupinus sulphureus* ssp. *kincaidii* that met our selection criteria and believe that we have provided for the concerns listed in the comment. We agree that additional areas not included in this designation that did not meet our selection criteria for critical habitat may also be needed to recover the species. However, information currently available does not suggest that these specific areas have the features that are essential to the conservation of the species.

13. *Comment:* No apparent biological reason exists for gaps between critical habitat units in the narrow waterway corridors for the Fender's blue butterfly in Eugene, Oregon. This commenter and eight others made recommendations for the inclusion of additional Fender's blue butterfly areas in the West Eugene area to address this issue and provide for species recovery.

Our Response: We did not include waterways between critical habitat units because the distance between lupine patches supporting Fender's blue butterflies exceeded the 1.2-m (2 km) average adult butterfly movement distance (Schultz 1998, pp. 288–290). Each unit includes all populations that are believed to be connected and functioning as a larger metapopulation given the current landscape. Schultz (1998, p. 291) documented that stepping-stones would be more beneficial to the butterfly than corridors, and McIntire *et al.* (2006, in review, pp. 20–22) identified necessary butterfly stepping-stone habitat in Eugene, Oregon. Refer to the Summary of Changes from Proposed Rule section in this rule for more information on changes to the critical habitat designation for the butterfly.

14. *Comment:* The inclusion of an additional habitat patch to unit KL–12B would allow for a more stable population of smaller *Lupinus sulphureus* ssp. *kincaidii* patches along the Amazon Channel. The U.S. Army Corps of Engineers (Corps) recommended including specific occupied sites they manage for *L. sulphureus* ssp. *kincaidii*.

Our Response: We have not had enough time to evaluate all of the information regarding potential critical habitat sites that we received during the public comment periods to determine if these sites meet our criteria.

15. *Comment:* The Eugene District of the Bureau of Land Managemnt (BLM) recommended including two newly discovered (June 2005) sites for Fender's blue butterfly and *Lupinus sulphureus* ssp. *kincaidii* within their District's upper Willamette resource area (Oak Basin).

Our Response: We appreciate the BLMs' recognition of the value of these sites; however, they did not meet our criteria for selection.

16. *Comment:* Several commenters stated that the proposed critical habitat designation for the Fender's blue butterfly or *Lupinus sulphureus* ssp. *kincaidii* included areas that overrepresent the extent of the habitat for these species.

Our Response: We revised the critical habitat boundaries, as appropriate, based on information received during the comment period. Prairie habitat that contains one or more of the Fender's blue butterfly primary constituent elements within 1.2 mi (2 km) of a butterfly population is considered occupied by the butterfly. Contiguous prairie habitat surrounding known populations of *L. sulphureus* ssp. *kincaidii* and *E. decumbens* var. *decumbens* is also considered occupied if it contained one or more of the species-specific primary constituent elements (*see* the Primary Constituent Elements and Criteria Used To Identify Critical Habitat sections).

17. *Comment:* We erroneously excluded areas of Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens,* including historic sites that are no longer extant, from the critical habitat designation. Additionally, the Army Corp of Engineers recommended including potential habitat sites they manage for *L. sulphureus* ssp. *kincaidii* and *E. decumbens* var. *decumbens.*

Our Response: We recognize that areas outside of this designation will contribute to the recovery of *Lupinus sulphureus* ssp. *kincaidii* and *Erigeron decumbens* var. *decumbens* and appreciate the Army Corp of Engineers' on-going efforts to manage for the species. However, not all sites that historically supported these species are considered to have the features that are essential to the conservation of the species. Some sites did not meet our criteria to be included in the final designation.

18. *Comment:* The Roseburg District of the BLM stated that the atypical habitat conditions where *Lupinus sulphureus* ssp. *kincaidii* occurs in Douglas County is described inconsistently with regard to the shade tolerance of the species, and that the first lupine primary constituent element does not apply in Douglas County.

Our Response: We agree, and have clarified the information in the Background, Primary Constituent Elements, and Criteria Used To Identify Critical Habitat sections of this rule to address BLM's concerns associated with the atypical habitat conditions for *Lupinus sulphureus* ssp. *kincaidii* in Douglas County. Individual critical habitat units for *L. sulphureus* ssp. *kincaidii* do not have to contain all of the species-specific primary constituent elements, but must contain at least one of the primary constituent elements to support a portion of the species' life history. The second primary constituent element for *L. sulphureus* ssp. *kincaidii* is associated with the critical habitat designation in Douglas County. We proposed critical habitat in Douglas County using the same criteria as in other areas, with the addition of atypical habitat conditions found in the county. Refer to the Primary Constituent Elements and Criteria Used To Identify Critical Habitat sections in this rule for more information on how we defined the critical habitat criteria for *L. sulphureus* ssp. *kincaidii*.

19. *Comment:* The proposed critical habitat rule, including primary constituent elements, is too narrowly focused to protect the habitat essential for the long-term survival and recovery of the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens.* In addition, the designation should include low quality areas.

Our Response: Most populations of the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens* have not been studied adequately to determine how best to restore functioning metapopulations in the highly fragmented prairie habitats within the Willamette Valley. We used the best available scientific information to determine primary constituent elements and critical habitat criteria for each species. We recognize that critical habitat designations, based on the species' primary constituent elements and other criteria, may not include all areas that may be necessary for species recovery. Future research and recovery planning will likely identify other areas that will aid in recovery. We only included areas of sufficient quality that

are able to sustain the species and have the features that are essential to the conservation of the species. (*see* the Criteria Used To Identify Critical Habitat section).

Comments From the Public Related to the Act and Implementing Regulations

20. *Comment:* The City of Eugene's West Eugene Wetlands Plan and Bureau of Land Management's West Eugene Wetlands Restoration Schedule do not include the level of special management considerations and protections provided under a critical habitat designation, and it would be inappropriate to exclude any area covered under these plans that would otherwise qualify as critical habitat.

Our Response: We agree, while the City of Eugene's West Eugene Wetlands Plan and Bureau of Land Management's West Eugene Wetlands Restoration Schedule include general planning schedules for the area, they did not provide the specificity of management that we needed to evaluate under our section 4(b)(2) process. As these and other planning efforts progress, we will work with involved entities to address the conservation of the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens.* If we revise critical habitat in the future, we will revaluate the status of planning efforts.

21. *Comment:* The Eugene District of the BLM requested that we consider (1) exempting all BLM-administered lands within the West Eugene Wetlands from the final critical habitat rule, or (2) exempting all actions under their 10-year schedule for restoration from further section 7 consultation on effects to critical habitat designations for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens.*

Our Response: Biological opinions resulting from a consultation are not in and of themselves a basis for exclusion. However, management plans that commit to specific appropriate management criteria, whether associated with a biological opinion or not, are considered for exclusion. We do not anticipate that further minimization measures on the West Eugene Wetlands Schedule Environmental Assessment (No. OR090–EA–05–03) will be required due to this final rule.

22. *Comment:* The Eugene District of the BLM stated that the development of a wetland education center is planned for the Danebo site. BLM and several other commenters believe that the positive effects of public education on the values and vulnerability of wetland species outweigh the benefits of designating critical habitat at this site.

Our Response: We agree that public outreach and voluntary conservation on wetlands and associated species in West Eugene is important. However, we have not been provided any project documention associated with a potential education center and are unable to assess whether the area has conservation in place that is comparable to designation as critical habitat.

23. *Comment:* Several commenters stated that they are willing to voluntarily manage the habitat on their property for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, or *Erigeron decumbens* var. *decumbens*, but do not want to be included in the critical habitat designation because of increased regulatory burdens. Some commenters specifically suggested not designating private agricultural lands, and requested a description of proper prairie habitat management to understand how it would affect agricultural operations.

Our Response: We support and appreciate the efforts that are being made by organizations and individuals to conserve listed species on their lands. When undertaking the process of designating critical habitat for a species, we evaluate lands defined by physical and biological features essential to the conservation of the species without regard to land ownership or land use. We will gladly evaluate conservation plans and efforts to determine if areas can be excluded because conservation is in place. At the time of this rule, we did not have conservation plans or other documents that would allow us to assess the adequacy of conservation on these specific lands. For a general description of proper management of prairie habitat, refer to the Special Management Considerations or Protections section of this rule. The specifics of management can vary from site to site, and we offer technical assistance to landowners in establishing management plans for conserving species.

24. *Comment:* Commenters disagree with our statement that ''the designation of statutory critical habitat provides little additional protection to most listed species.'' Commenters also note several court decisions that have invalidated this position, which violates Congressional intent and the plain language of the Endangered Species Act.

Our Response: In most cases, conservation mechanisms provided through section 7 consultations, section 4 recovery planning process, section 9 protective prohibitions of unauthorized take, section 6 funding to the States, section 10 incidental take permits, and cooperative programs with private and public landholders and tribal nations provide greater incentives and conservation benefits than designation of critical habitat.

25. *Comment:* The City of Eugene identified several conservation accomplishments achieved through implementation of the West Eugene Wetlands Plan, including the outgrowth of the West Eugene Wetlands Partnership. The City provided suggestions for reducing the regulatory requirements associated with critical habitat designation on their property in order to increase their ability to effectively manage their lands.

Our Response: We agree that the City of Eugene and its partners have significantly contributed to wetland conservation through the implementation of their wetland mitigation plan. The mitigation plan, however, is not specifically designed to protect and manage habitat for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens*, and does not provide the specific management details needed to meet our section 4(b)(2) requirements.

Comments From States Related to Critical Habitat, Primary Constituent Elements, and Methodology

26. *Comment:* The Washington Department of Natural Resources (WDNR) recommended that the Lewis County, Washington *Lupinus sulphureus* ssp. *kincaidii* parcels be excluded from the critical habitat designation. WDNR believes that the willingness of landowners to cooperate with the WDNR on species conservation may be negatively affected if landowners view the designation as a restriction on their ability to use the land.

Our Response: We are excluding unit KL–1A from critical habitat designation based on the *Lupinus sulphureus* ssp. *kincaidii* conservation provisions documented in the landowner's management plan with U.S. Department of Agriculture Natural Resources Conservation Service. For more information, see the ''Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act'' section of the rule. Unit KL–1B is not eligible for exclusion because there is no current management or conservation plan for the species or the features essential to its conservation at this site.

Comments Related to Economic Analysis; and Other Relevant Impacts

27. *Comment:* We received a comment stating that the draft economic analysis does not consider the impact of critical habitat designation on the conservation market (*i.e.*, the supply, demand, and exchange of habitat through decisions by buyers and sellers); that designating critical habitat removes both the option for development and the appeal of the area for potential conservation land. The commenter believes the draft economic analysis only quantifies the former cost, and not the latter.

Our Response: If landowners forgo the development of their land to conserve the habitat, their value for conservation is equal to or greater than the value of the development opportunity. The draft economic analysis measured this opportunity cost. The cost of acquiring conservation easements is captured in Section 4.0, which includes estimates of the cost of land use restrictions imposed on landowners by conservation efforts associated with the species. The lost land value (*i.e.*, growth premium and option value) calculated in Section 4.0 represents the underlying value of conservation easements that could be purchased in order to remove the development opportunity from the land and to protect the habitat. This same concept applies if the land is sold for conservation purposes (presumably at some market price). The market price for conservation would be set by the highest valued use for the land. The extent that critical habitat designation reduces the appeal of an area for potential conservation land, and results in a reduction in land value beyond the option for development measured by the draft economic analysis, is understated in the draft economic analysis. However, no evidence was provided indicating that critical habitat designation makes land less attractive for conservation.

28. *Comment:* We should include the value of ecosystems in analyzing economic issues associated with the designation of critical habitat designations.

Our Response: We recognize that the various functions of an ecosystem have value, but we are unable to meaningfully place an economic value on the biological attributes that function to make a viable ecosystem. The benefits of critical habitat are best expressed in biological terms, *e.g.*, the conservation benefit provided to a species, which can then be weighed against the expected economic impacts of the rulemaking. The purpose of a critical habitat economic analysis is to assist the Secretary in deciding whether the benefits of exclusion outweigh the benefits of inclusion, and if areas should be excluded under section 4(b)(2) of the Act. We may not be able to quantitatively account for the value of ecosystems in analyzing economic issues related to the designation of critical habitat, but we have done so qualitatively in a manner that supports the Secretary's exclusion analysis through the 4(b)(2) process.

29. *Comment:* The economic analysis can not reasonably weigh the biological benefits of critical habitat designation without weighing its biological costs, such as habitat losses brought on as a result of the landowners' beliefs that they have disincentives to maintain the habitat. The economic analysis dismisses these biological costs as rare, but the commenter believes they are potentially substantial.

Our Response: In the proposed rule and draft economic analysis, we indicated that we did not expect the designation of critical habitat to provide significant additional regulatory or economic burdens or restrictions beyond those afforded the species pursuant to the Act. This assertion is based on the regulatory protections afforded to Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens* as a result of their existing listed status, and the protections that status affords. Since all the lands designated as critical habitat are already occupied by one or more of species, there is little additional regulatory burden placed on private landowners.

30. *Comment:* Other commenters stated the draft economic analysis does not assess the potential impacts to them as landowners if a vintner is discouraged from leasing or they are discouraged from developing a vineyard on their land in Polk County due to the critical habitat designation.

Our Response: As described in Section 4.1 of the draft economic analysis, if development of a parcel of agriculture land is restricted, it will be worth less than its value in the previously unrestricted state. This loss of value is a cost to the landowner; with the magnitude of loss depending on the type of land use restriction imposed. Specifically, if a piece of land is restricted from any kind of use, all of its economic value will be lost. Based on recent sales transactions obtained from Farm Credit Services of agriculture land similar to the proposed critical habitat in Polk County (*i.e.*, 49 sales during the period 2000 to 2005), a complete loss of economic value to the commenter's land in Polk County could approach $8,000 per acre.

However, as stated in Section 4.0 of the draft economic analysis, this analysis assumes the agriculture use of privately owned land will be unrestricted, and the draft economic analysis only presents economic impacts to the commenter's land related to the loss of development opportunity. In this case, the development impact measured in the draft economic analysis is nearly $6,600 per acre, 93 percent of their estimated land value. If a vineyard opportunity is restricted on private property in order to conserve species, there may be an additional loss in property value above that quantified in the draft economic analysis.

31. *Comment:* The draft economic analysis does not calculate the lost farm and forest values associated with land development. Development destroys the farm or forest potential, eliminating a stream of economic benefits. This income and benefit stream is associated with land conservation and should be included among the economic benefits of critical habitat designation.

Our Response: As described in Section 4.0 of the of the draft economic analysis, the existing agricultural use of the private land within the proposed critical habitat designation is assumed to remain unrestricted. While critical habitat designation may restrict development opportunities, depending on the existence of a Federal nexus, the ongoing use of the land for farming and forestry is expected to continue, is embedded in the land value, and is included in the economic analysis.

32. *Comment:* The economic cost of recovering very small populations or populations that lack adequate habitat will be significantly greater than the cost of recovering populations with adequate habitat. Conserving rare plant species through the designation of critical habitat will also conserve other species. The effort to recover rare species should be considered when performing an economic analysis pursuant to the designation of critical habitat.

Our Response: The economic costs of future recovery actions for species not addressed in the designation are independent of the economic impacts caused by the critical habitat designation, which is the focus of this economic analysis. It would be inappropriate for us to speculate on how an unknown suite of future recovery actions for other species might be made more or less costly as a result of the designation.

33. *Comment:* The economic analysis exaggerated the economic costs of the

critical habitat designation through sheer speculation.

Our Response: To ensure that all possible potential economic impacts were given adequate consideration, we contacted all appropriate State and Federal agencies, Tribes, county governments, elected officials, and other interested parties and invited them to comment. In addition, we invited public comment through the publication of notices in several local newspapers. We provided notification of the draft economic analysis through telephone calls, letters, and news releases faxed or mailed to affected elected officials, local jurisdictions, and interest groups. We also published the draft economic analysis and associated material on our internet site (*http://www.fws.gov/oregonfwo/Species/ESA-Actions/WillValleyPage.asp*) following the draft's release on June 15, 2006. In addition to inviting public comment on the proposed designation, the later notices announced the dates and times of a public hearing on the proposed designation. Any economic impacts described in the draft economic analysis are a direct result of this extensive effort to collect data on the actual potential impacts. While some potential impacts are less likely than others, all impacts described result from following a consistent approach to gathering this information.

34. *Comment:* The economic analysis illegally attributed costs associated with the species listing to costs of critical habitat designation.

Our Response: The primary purpose of the economic analysis is to estimate the potential economic impacts associated with the designation of critical habitat for these three species. We interpret the Act to require that the economic analysis include all of the economic impacts associated with the conservation of the species, which may include some of the effects associated with listing. We note that the Act generally requires critical habitat to be designated at the time of listing, and if we had conducted an economic analysis at that time, the impacts associated with listing would not be readily distinguishable from those associated with critical habitat designation.

35. *Comment:* The draft economic analysis first suggests that the costs arising from the potential loss of development opportunity on private lands in Benton County will be borne by the existing landowners, and then suggests that the acquisition of conservation easements under the Benton County Habitat Conservation Plan (HCP) will be borne by the County (*i.e.*, public).

Our Response: Private owners of critical habitat in Benton County could sell the development opportunity (*i.e.*, conservation easement) on their land to the County if their land is a desired acquisition identified in the HCP. Under this scenario, the development impact would be to the public, because the development opportunity would be purchased from the private landowner with public funds. The conclusions in final economic analysis will be corrected.

36. *Comment:* The economic costs in the draft economic analysis are overstated because the critical habitat designation is assumed to result in a complete loss of all development potential for all private lands within the critical habitat designation, even though there are no direct regulatory impacts on privately owned lands within the critical habitat designation. Further, the draft economic analysis does not consider wetland and rural zoning constraints that already limit development. Most of the privately owned critical habitat is located outside the urban growth boundaries (UGBs) and would not be developed within the 20 year scope of the draft economic analysis.

Our Response: As described in Section 4.0, Federal regulations do not usually constrain development on private lands, and Federal endangered species laws generally do not apply to listed plants on private lands. However, much of the *Lupinus sulphureus* ssp. *kincaidii* and *Erigeron decumbens* var. *decumbens* habitat overlaps with Fender's blue butterfly habitat, is classified as wet prairie grassland habitat (*E. decumbens* var. *decumbens*), or occurs within the boundaries of the future Benton County HCP. In these situations, privately owned Fender's blue butterfly, *L. sulphureus* ssp. *Kincaidii*, and *E. decumbens* var. *decumbens* habitat will have some level of protection through conservation actions included in an incidental take permit for Fender's blue butterfly, recommended through a section 7 consultation for a section 404 permit, or built into an HCP. Considering the absence of specific information on how development projects would mitigate for impacts to the species, the extent to which a future development project would be impacted by the species and habitat conservation is uncertain. The draft economic analysis presents the value derived from the option for future development of private lands, and explains that estimated impacts are overstated in the case that development is not constrained within the proposed critical habitat designation. Embedded in land values is the likelihood and timing of potential future development; that is, a parcel of land unlikely to be developed within the next 20 years would have a lower option value for development than an imminently developable parcel. The likelihood and timing of development is therefore incorporated into this analysis. The analysis further explains that the cost of development restrictions can be calculated proportionally for a unit if development is prohibited on only a portion of the unit.

While wetland classification and rural zoning may limit development, they will not preclude it now or in the future. As described in the ''Example of Potential Development Impacts'' text box in Section 4.0, major development projects are being proposed on *Erigeron decumbens* var. *decumbens* wet prairie habitat, subject to compensatory mitigation. It is true that much of the privately owned land located outside the UGB may not be developed during the 20-year scope of the analysis, and that if it were developed it would be subject to the rural zoning regulations. However, the current zoning and future timing of development of each parcel of private land is not relevant to the economic analysis, because the economic impacts to private landowners will occur immediately after the lands are designated. Once announced, the critical habitat designation would impact the future development opportunity of a parcel for as long as the regulation is in place, even if the property is rural and located outside an UGB. Thus, while the actual development of a property may not occur within the 20-year scope of analysis, the impact to the private landowner from the critical habitat designation will occur the day the designation is announced, and therefore is appropriately measured in the draft economic analysis.

37. *Comment:* If critical habitat designation limits the development opportunity of privately owned land, as presented in the draft economic analysis, the analysis should evaluate likely price increases on the remaining developable land within the region, because a reduction in the supply of developable land will cause the price of the remaining developable land to increase.

Our Response: The impact of the loss in development opportunity on the remaining privately owned developable land, within the critical habitat designation is expected to be small, because the area impacted is relatively small compared to the supply of developable land in the region. As

explained in Section 4.1 of the draft economic analysis, most of the future urban and rural development is projected to occur predominately on lands used for agriculture. The privately owned portion of the designation (approximately 2,100 acres) represents one-tenth of one percent of the agricultural acres in the eight county area (approximately 2 million acres).

38. *Comment:* The proposed West Eugene Parkway (WEP), as designed prior to the critical habitat designation, was not an at-grade highway as described in the draft economic analysis, but rather an elevated highway. Therefore, the cost of species conservation activities presented in the draft economic analysis is in question.

Our Response: The comment is correct. According to Oregon Department of Transportation (ODOT), the proposed project design is for an elevated structure. However, the proposed critical habitat designation caused ODOT to look more closely at the elevation, placement of supports, and length of elevated section. Because of the proposed critical habitat designation, the elevation of the proposed project is now higher and the length of the elevated section longer. While Section 6.1.2.1 incorrectly described the pre-critical habitat designation project as an at-grade roadway, the cost estimate provided by ODOT for the draft economic analysis correctly reflects the best estimate of additional costs associated with reconfiguring the elevated section spanning the proposed designation (*i.e.*, higher and longer) to off-set impacts to the species. The final economic analysis will be corrected.

39. *Comment:* The WEP is unlikely to be built anytime in the near future, and it should be considered speculative until the project is approved in a Record of Decision (ROD) and survives numerous legal and financial obstacles and political hurdles. Because the project is only speculative at this time, it should be excluded from the draft economic analysis.

Our Response: As described in Section 1.3, the draft economic analysis estimates impacts based on activities that are ''reasonably foreseeable,'' including, but not limited to, activities that are currently authorized, permitted, or funded, or for which proposed plans are currently available to the public. The WEP falls under this latter category. While it is not known when WEP will ultimately be constructed, WEP is a proposed project that is the product of more than 20 years of planning, public involvement, environmental analysis, and engineering, and the goal is to complete the NEPA process with a signed ROD by the end of 2006 (Section 6.1.2.1). Because the timing of the project is unknown (it will commence no earlier than 2008 based on anticipated dates for environmental compliance and permitting), the project is assigned an equal probability of occurring between years 2008 and 2026 to reflect the uncertainty.

40. *Comment:* The draft economic analysis does not consider benefits of critical habitat designation, including social welfare, input to regional economics, conservation bank revenues, recreation/educational/cultural benefits, support of local agriculture industry and jobs, land input for recreational values, and support of local tourism industry.

Our Response: Where data are available, the analysis attempts to recognize and measure the net economic impact of the proposed designation. For example, as described in Section 7.2.3, 145,000 people visit the Baskett Slough National Wildlife Refuge annually, primarily to hike and observe wildlife. While the visitor data are not broken down by species, and the annual number of individuals that visit the Refuge specifically to see Fender's blue butterfly and *Erigeron decumbens* var. *decumbens* is not known, at least 300 elementary school students and teachers visit the Refuge annually to observe Fender's blue butterfly. The use demonstrates educational, cultural, and recreational benefits related to wildlife viewing. However, the Refuge does not charge for the school program, and there are no willingness-to-pay values specific to the species. Therefore, the analysis acknowledges the educational, cultural, and recreational benefits that the Refuge provides, but does not quantify associated welfare benefits.

41. *Comment:* Economic benefits should be better quantified in the economic analysis, specifically the benefits associated with existence value, private land value increases due to supply constraints, farm and forest values of undeveloped lands, use values of natural lands, option values, amenity values of natural open spaces, ecological values, environmental quality, and social health and welfare.

Our Response: Section 4(b)(2) of the Act requires the Secretary to designate critical habitat based on the best scientific data available after taking into consideration the economic impact, impact on national security, and any other relevant impact, of specifying any particular area as critical habitat. Our approach for estimating economic impacts includes both economic efficiency and distributional effects. The measurement of economic efficiency is based on the concept of opportunity costs, which reflect the value of goods and services foregone in order to comply with the effects of the designation (*e.g.*, lost economic opportunity associated with restrictions on land use). When data are available, we attempt to measure the net economic impact in our economic analyses. However, no data was found that allows the measurement of such an impact, nor was information submitted during the public comment period.

Most of the other benefit categories submitted reflect broader social values, which are not the same as economic impacts. While the Secretary must consider economic and other relevant impacts as part of the final decision-making process under section 4(b)(2) of the Act, the Act explicitly states that it is the government's policy to conserve all threatened and endangered species and the ecosystems upon which they depend. Thus, we believe that explicit consideration of broader social values for these species and their habitats, beyond the more traditionally defined economic impacts, is not necessary because Congress has already clarified the social importance. As a practical matter, it is difficult to develop credible estimates of such values, because they are not readily observed through typical market transactions and can only be inferred through advanced, tailor-made studies that are time consuming and expensive to conduct.

42. *Comment:* The cost estimates in the draft economic analysis fail to consider the cumulative effect of regulations on private lands.

Our Response: We are required to consider only the effect of the proposed government action, which in this case is the designation of critical habitat for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens*. The appropriate baseline for use in the economic analysis is the regulatory environment without this regulation. Against this baseline, we attempt to identify and measure the incremental costs and benefits associated with the designation of critical habitat. When critical habitat for other species has already been designated, it is properly considered part of the baseline for this analysis. Future critical habitat designations for other species in the area will be part of separate rulemakings, and consequently, their economic effects will be considered separately.

43. *Comment:* The draft economic analysis includes costs that are independent of and unrelated to the listing or critical habitat designation,

particularly costs related to maintaining the Baskett Slough National Wildlife Refuge and the West Eugene Wetlands restoration program. The proposed critical habitat is an overlay on previously delineated resources, and city and county ordinances and zoning, that are not considered in the draft economic analysis, resulting in an underestimation of actual costs; the draft economic analysis does not estimate the cumulative effects of regulation on private ownership.

Our Response: As described in Section 1.2 of the draft economic analysis, coextensive effects as quantified in the draft economic analysis may also include impacts associated with overlapping protective measures of other Federal, State, and local laws and programs that aid habitat conservation in the areas proposed for designation. The draft economic analysis notes that in the past, some measures have been precipitated by the listing of the species and impending designation of critical habitat. Habitat conservation actions protecting a listed species are likely to contribute to the efficacy of critical habitat designations. Therefore, the impacts of them are considered relevant for understanding the full effect of the proposed critical habitat designation. Further, considering the absence of specific information on how development projects on private land would mitigate impacts to the species, the extent to which a future development project would be impacted by the species and habitat conservation is uncertain. The draft economic analysis therefore presents the value derived from potential future development on private lands (*i.e.*, the complete loss of any and all development potential) and explains that estimated impacts would be overstated if development occurs within the proposed critical habitat designation. Any city, county, or other ordinance or regulation, such as wetland classification and rural zoning, may limit development, but not preclude it now or in the future (*see* ''Example of Potential Development Impacts'' text box in Section 4.0). Thus, the economic impact of restrictions to the private landowner is already captured in the estimation of complete loss of any and all development potential. Enforcement actions taken in response to violations of the Act, however, are not included.

44. *Comment:* The cost estimates are inadequate because of the extreme range of costs presented in the draft economic analysis.

Our Response: To account for the range of land values, the variety of mitigation measures available for off-setting impacts, and the uncertain timing and cost of project mitigation, the analysis presents the potential costs associated with species conservation actions as a range.

45. *Comment:* The draft economic analysis recognizes the potential for additional economic impacts under other state or local laws triggered by critical habitat designation. Yet, the economic analysis does not consider the efforts recently begun by the City of Eugene to inventory upland prairie and other habitats under Goal 5, which will be the basis of future recommendations on possible protection measures or conservation incentive programs.

Our Response: This is correct; the draft economic analysis does not specifically consider the City's inventory program. As stated by the commenter, this is goal oriented and it is uncertain what this inventory means in terms of future regulatory costs.

Summary of Changes From Proposed Rule

The area proposed as critical habitat in Eugene, Oregon, for the Fender's blue butterfly has been revised for this final designation. Specifically, the areas that were proposed as a corridor between stepping-stone areas and core populations are not included in this final designation. We re-evaluated these areas and determined that they do not provide features essential to the conservation of the Fender's blue butterfly. Specifically, the corridor is largely a channel of water, delineated bank to bank, which does not include prairie habitat. Furthermore, Schultz (1998, p. 291) documented that stepping-stones would be more beneficial to the butterfly than corridors, and McIntire *et al.* (2006, in review, p. 20–22) identified specific butterfly stepping-stone habitat in the Eugene, Oregon, area necessary to re-establish a connected, functioning network of habitat. Areas specifically identified in McIntire *et al.* (2006, in review, p. 20–22) were included in the proposed rule and remain in this final designation, with the exception of one stepping-stone area (0.4 ac (0.2 ha)) that was overlooked as a result of a mapping error in the proposed designation.

During the initial comment period for the proposed critical habitat designation, we received new information about two of the *Lupinus sulphureus* ssp. *kincaidii* units and one of the Fender's blue butterfly units. This information indicated that KL–8, KL–16B, and FBB–7 units included areas that do not provide the features essential to the conservation of these species. Therefore, we reduced KL–8 and FBB–7 to include only areas containing the features essential to the conservation of the species. Unit KL–16B was eliminated because it lacks appropriate features.

Based on comments from peer reviewers, we made minor modifications to the primary consitutent elements for all three species. In the first primary consitutent elements for the Fender's blue butterfly and *Erigeron decumbens* var. *decumbens,* we clarified that both upland and wet prairie habitat are features essential to the conservation of the species. For *Lupinus sulphureus* ssp. *kincaidii* and *E. decumbens* var. *decumbens,* we removed references from the first primary consitutent elements that gave a greater level of importance to proper moisture and protection from competitive invasive species than is essential.

In the proposed rule, the first Fender's blue butterfly primary consitutent element was as follows:

(1) Early seral upland prairie, oak savanna habitat with undisturbed subsoils that provides a mosaic of low-growing grasses and forbs, and an absence of dense canopy vegetation allowing access to sunlight needed to seek nectar and search for mates;

In this final rule, the first PCE is as follows:

(1) Early seral upland prairie, wet prairie, or oak savanna habitat with a mosaic of low-growing grasses and forbs, an absence of dense canopy vegetation; and undisturbed subsoils.

In the proposed rule, the first primary consitutent element for *Lupinus sulphureus* ssp. *kincaidii* was as follows:

(1) Early seral upland prairie, oak savanna habitat with a mosaic of low-growing grasses, forbs, and spaces to establish seedlings or new vegetative growth, with an absence of dense canopy vegetation providing sunlight for individual and population growth and reproduction and with undisturbed subsoils and proper moisture and protection from competitive invasive species.

In this final rule, the first primary consitutent element is as follows:

(1) Early seral upland prairie, or oak savanna habitat with a mosaic of low-growing grasses and forbs, and spaces to establish seedlings or new vegetative growth; an absence of dense canopy vegetation; and undisturbed subsoils.

In the proposed rule, the primary consitutent element for *E. decumbens* var. *decumbens* was as follows:

(1) Early seral upland prairie, oak savanna habitat with a mosaic of low-

growing grasses, forbs, and spaces to establish seedlings or new vegetative growth, with an absence of dense canopy vegetation providing sunlight for individual and population growth and reproduction and with undisturbed subsoils and proper moisture and protection from competitive invasive species.

In this final rule, the primary consitutent element is as follows:

(1) Early seral upland prairie, wet prairie, or oak savanna habitat with a mosaic of low-growing grasses and forbs, and spaces to establish seedlings or new vegetative growth; an absence of dense canopy vegetation; and undisturbed subsoils.

Based on the information provided by several peer reviewers, we made minor corrections throughout the document to reflect the most accurate representation of the best available scientific information, including revisions to the methodology section to more accurately describe the methodology used for the proposed designation. The unit descriptions were also updated to more accurately identify areas included within the final designation.

Critical Habitat

Critical habitat is defined in section 3 of the Act as—(i) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, regulated taking.

Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a Federal agency. Section 7 requires consultation on Federal actions that are likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow government or public access to private lands. Section 7 is a purely protective measure and does not require implementation of restoration, recovery, or enhancement measures.

To be included in a critical habitat designation, the habitat within the area occupied by the species must first have features that are essential to the conservation of the species. Critical habitat designations identify, to the extent known using the best scientific data available, habitat areas that provide essential life cycle needs of the species (*i.e.*, areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)).

Habitat occupied at the time of listing may be included in critical habitat only if the essential features thereon may require special management or protection. Thus, we do not include areas where existing management is sufficient to conserve the species. (As discussed below, such areas may also be excluded from critical habitat pursuant to section 4(b)(2).) Accordingly, when the best available scientific data do not demonstrate that the conservation needs of the species require additional areas, we will not designate critical habitat in areas outside the geographical area occupied by the species at the time of listing. An area currently occupied by the species but not known to be occupied at the time of listing will likely, but not always, be essential to the conservation of the species, and therefore, typically included in the critical habitat designation.

The Service's Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), along with Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service, provide criteria and guidance and establish procedures to ensure that decisions made by the Service represent the best scientific data available. They require Service biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat. When determining which areas are critical habitat, the Service generally uses the listing package as a primary source of information. Additional information sources include articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, or other unpublished materials and expert opinion or personal knowledge. All information is used in accordance with the provisions of Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. For these reasons, critical habitat designations do not signal that habitat outside the designation is unimportant or not required for recovery. It is generally understood that recovery of remaining populations will involve expanding existing populations, increasing connectivity, and/or improving habitat quality (Schultz *et al.* 2003, pp. 61, 68–70; Severns 2003a, p. 227; Wilson *et al.* 2003, pp. 79–80).

Most populations of Fender's blue butterfly, *Lupinus sulphureus* ssp. *Kincaidii*, and *Erigeron decumbens* var. *decumbens* have not been studied well enough to determine how to restore functioning metapopulations in these highly fragmented prairie remnants. Because each of the remaining populations occurs in a unique habitat setting, habitat analyses will likely need to be completed to determine which lands are suitable for expanding populations, increasing connectivity, and reestablishing functioning metapopulations. McIntire *et al.* (in review, p. 2) demonstrate the usefulness of utilizing a focal species approach and spatially explicit models in planning restoration activities for at-risk species such as the Fender's blue butterfly. However, this approach to developing restoration options for conserving at-risk species requires an understanding of potentially suitable habitat within the constraints of a unique habitat setting (McIntire *et al.* in review, p. 3). For many populations of Fender's blue butterfly, *L. sulphureus* ssp. *kincaidii,*

and *E. decumbens* var. *decumbens,* we do not have the information necessary to specifically identify additional areas that may be suitable for restoration and useful for increasing connectivity between populations and larger metapopulations.

Areas that support populations, but are outside the critical habitat designation, will continue to be subject to conservation actions implemented under section 7(a)(1) of the Act, and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, as determined on the basis of the best available information at the time of the action. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available to these planning efforts calls for a different strategy.

Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, in determining which areas to designate as critical habitat, we consider those physical and biological features (primary constituent elements (PCEs)) that are essential to the conservation of the species, and within areas occupied by the species at the time of listing, that may require special management considerations and protection. These include, but are not limited to, space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, and rearing (or development) of offspring; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

The specific primary constituent elements required for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii,* and *Erigeron decumbens* var. *decumbens* are derived from the biological needs of these species as described in the Background section of this proposal.

Space for Individual and Population Growth and Normal Behavior

Fender's blue butterfly

Historically, the Willamette Valley was a mosaic of upland and wetland prairie, with lupine patches rarely more than 0.3 miles (0.5 km) apart, providing a high probability that the Fender's blue butterfly could disperse between patches (Schultz 1998, p. 284). Habitat fragmentation has isolated the remaining populations of Fender's blue butterfly to such an extent that dispersal between suitable habitat patches is now likely a rare event (Schultz 1998, p. 291), which increases the risk of inbreeding depression (Schultz *et al.* 2003, p. 70). The rarity of host lupine patches and habitat fragmentation are the major ecological factors limiting reproduction, dispersal, and subsequent colonization of new habitat (Hammond and Wilson 1992, p. 172; Schultz 1997a, p. 88; Schultz and Dlugosch 1999, p. 231).

Conservation recommendations for recovering the Fender's blue butterfly include having enough high-quality habitat to maintain viable populations across the range of the species (Schultz *et al.* 2003, p. 61, 68). This will require habitat restoration to create new sites, expanding the size of existing sites, and creating habitat networks that connect isolated populations (Schultz *et al.* 2003, p. 68, 69–70). By comparing field notes (USFWS 2004a, entire data set) to population counts (Fitzpatrick 2005, pp. 10, 11; Hammond 2004, p. 35), we determined that the largest remaining Fender's blue butterfly populations generally occur in the largest, most connected prairie remnants currently supporting the species. Although the prairie habitat supporting these populations is threatened to varying degrees by invasive species and woody succession, it also appears to have the highest diversity of native plant species. Large habitat patches tend to support higher native species diversity (Noss and Cooperrider 1994, p. 34) and the Fender's blue butterfly depends on a diversity of native plant species for survival (Wilson *et al.* 1997, p. 3, 5).

To promote successful dispersal among lupine patches and reestablish functioning metapopulations, Fender's blue butterflies will likely require stepping stones of lupine patches that are close enough together for dispersing butterflies to have a high probability of finding the patches (Schultz 1998, p. 284, 286). This conservation reserve strategy is superior to narrow linear corridors because the Fender's blue butterfly flight patterns into non-lupine habitat make it unlikely they would stay in a narrow corridor (Schultz 1998, p. 284, 286, 291). Reestablishing stepping stones of lupine habitat between existing populations increases the likelihood that dispersing individuals will move from one large lupine patch to the next (Schultz 1998, p. 291). Lupine patches should be less than 0.6 mile (1 km) from their nearest neighbor (Schultz 1998, p. 291; Schultz 2001, p. 1008; Schultz and Crone 2005, p. 887, 892) to restore functioning metapopulations for the Fender's blue butterfly and ensure the long-term persistence of this species (Schultz *et al.* 2003, p. 70).

For the conservation of the Fender's blue butterfly we anticipate we will need several functioning habitat networks distributed across the range of the species. Connectivity will be best achieved among the component butterfly subpopulations by a stepping-stone arrangement of sites that meet minimum size, distance, and quality criteria.

Lupinus sulphureus ssp. *kincaidii*

For many organisms that are patchily distributed, the minimum viable population will often depend on both the occupied and surrounding unoccupied habitat that is protected and managed for the species (Nunny and Campbell 1993, p. 238). Plant populations often occupy only small regions of the available habitat at any one period, and this pattern is relevant to their conservation (Menges 1991, pp. 53, 54). The habitat between plant patches may serve as a site for future populations and may be critical for the long-term perseverance of the species (Nunny and Campbell 1993, p. 238). Wilson (1998b, p. 2) has documented that the open spaces between bunchgrasses in prairie habitat are often utilized for seedling establishment and the vegetative spread of forbs.

Native upland prairies are low-growing plant communities dominated by bunchgrasses with open spaces occurring between plants (Wilson 1998b, p. 2). Spaces between bunchgrasses remain available for the vegetative spread of lupine and seedling establishment necessary for expanding population size and increasing population viability. Severns (in review, p. 10) documents that *Lupinus sulphureus* ssp. *kincaidii* natural germinants were found primarily growing in habitats with exposure to sunlight such as areas of bare ground and short grasses. In addition to providing space for population growth, larger prairie habitats provide opportunity for population expansion because the native grasses and forbs maintain the short-grass prairie stature and provide the full-sun conditions necessary for the species to grow and expand into surrounding habitat (Wilson 1998b, p. 2).

Lupinus sulphureus ssp. *kincaidii* populations exhibit typical signs of inbreeding depression (a process that weakens plant fitness through repeated generations of inbreeding) such as low seed production, which is attributed to the small size and isolated nature of the species' current distribution (Severns 2003a, p. 221, 222; Wilson *et al.* 2003, p. 75). Insect outcrossing pollination (the transfer of pollen from the flower of one plant to the flower of another plant of the same species) has been documented as important for the conservation of *L. sulphureus* ssp. *kincaidii* (Wilson *et al.* 2003, p. 72, 75). Since *L. sulphureus* ssp. *kincaidii* is a long-lived perennial that can grow wider than 10 m across, and observations suggest that lupine patches are either one individual or a few closely related individuals (Severns 2003a, p. 225), successful outcrossing pollination will require large populations with many individuals or multiple plant patches of unrelated individuals that are functionally connected (*i.e.*, they are in close enough proximity that pollinators will move between the patches). The number of *L. sulphureus* ssp. *kincaidii* patches occurring within a prairie remnant has been positively correlated with increased seed production, likely because larger populations have a higher density of floral displays and attract more pollinators (Severns 2003a, pp. 221, 222, 225). Since population size is important for visibility to pollinators and the successful reproduction of *L. sulphureus* ssp. *kincaidii*, increasing the size of existing populations will play a role in recovering this species (Severns 2003a, p. 226).

Habitat management for the conservation of *Lupinus sulphureus* ssp. *kincaidii* should include expanding the size of existing populations by augmenting them with individuals from other populations (Severns 2003a, p. 227). The prairie habitat occurring between existing lupine patches is necessary to provide space for augmentations intended to reduce the effects of inbreeding depression. Smaller distances between plant patches increase the likelihood of outcrossing as insect pollinators more readily travel among nearby patches to transfer pollen between individual plants. Therefore, the stepping-stone reserve design recommended for the Fender's blue butterfly will also benefit *L. sulphureus* ssp. *kincaidii* by increasing opportunity for pollen transfer between existing plant patches and allowing current small populations to function together as larger ones (Severns 2003a, p. 227).

The *Lupinus sulphureus* ssp. *kincaidii* will benefit from conserved habitat across the historic range of the species, with populations larger than 0.25 ac (0.1 ha) of lupine cover and within 5 miles (8 km) of neighboring populations (Gisler *et al., in litt.*, 2005, pp. 6, 7). An area-based measurement is used for minimum patch size due to the difficulty of counting individual plants of this clonal species. The 5-mile (8-km) criterion is based on the maximum pollinating distance of the honeybee (*Apis mellifera*) (Beekman and Ratnieks 2000, p. 493; Steffan Dewenter and Kuhn 2003, p. 571), which is the pollinator with the greatest travel distance for *L. sulphureus* ssp. *kincaidii* (Gisler *et al., in litt.*, 2005, p. 7). These criteria are expected to promote larger functioning metapopulations, with increased population sizes and genetic diversity, which in turn promote long-term population viability and species conservation.

Erigeron decumbens var. *decumbens*

Erigeron decumbens var. decumbens populations are currently vulnerable to inbreeding depression throughout their range because they occur in small, isolated habitat patches (Jackson 1996, p. 88). Jackson (1996, p. 28) documents that conservation plans for the wet prairie habitat must emphasize connections, corridors, and large areas of contiguous habitat. Clark *et al.* (1993, p. 44) identified habitats critical for the conservation of *E. decumbens* var. *decumbens* and recommends protecting sites harboring large populations of native plants, prairie habitat providing physical links between *E. decumbens* var. *decumbens populations*, and potential sites for restoration in order to reduce the current threats to survival.

Erigeron decumbens var. *decumbens* populations are typically distributed in clumps scattered across the prairie habitat and dispersed among other prairie indicator species (Clark *et al.* 1993, pp. 21, 22). Larger prairie remnants are more likely to provide the conditions necessary to support population growth because the native species composition maintains the light and open spaces between bunch grasses necessary for this species to persist and expand. Conservation measures necessary for maintaining and increasing the few remaining populations of *E. decumbens* var. *decumbens* include promoting conditions for natural regeneration and possibly augmenting small populations with propagated individuals (Clark *et al.* 1995b, p. 22). Open spaces between bunch grasses allow *E. decumbens* var. *decumbens* to establish seedlings and vegetatively spread within a habitat patch. Larger prairie remnants provide the area necessary for planting propagated individuals and for natural regeneration.

Food

The Fender's blue butterfly uses *Lupinus sulphureus* ssp. *kincaidii*, *L. arbustus* (spurred lupine), and *L. albicaulis* (sickle-keeled lupine) as larval host plants. Adult Fender's blue butterflies require several forbs for nectar (Schultz and Dlugosch 1999, p. 232; Schultz *et al.* 2003, p. 65). Examples of adult nectar sources include: *Allium acuminatum* (tapertip onion), *Allium amplectans* (narrowleaf onion), *Calochortus tolmiei* (Tolmie's mariposa lily), *Eriophyllum lanatum* (woolly sunflower), *Sidalcea campestris* (Meadow checkermallow), *Sidalcea virgata* (rose checker-mallow), *Vicia sativa* (common vetch), and *V. hirsuta* (tiny vetch) (Kaye *in litt.a*, p. 2) These exotic vetches (*V. sativa* and *V. hirsuta*) are heavily used at many sites but are considered a lower quality source of nectar (Schultz *et al.* 2003, p. 65).

Light

As previously described, all three species are early seral and occur in open areas. Willamette Valley grasslands have been described as a mixture of wet and upland prairie habitat and oak/savanna habitat having a relatively open canopy cover (Altman *et al.* 2001, p. 261). These open areas were historically maintained by indigenous people who seasonally burned the land to facilitate hunting and gathering of food (Clark 2000, p. 3; Jackson 1996, pp. 11, 12). The fires prevented the widespread abundance of woody species and maintained the openness needed for early seral species to persist (Jackson 1996, p. 1; Wilson *et al.* 2003, p. 79). Change in this historic disturbance regime has allowed shrubs and trees to invade many prairies and oak/savannas.

Populations of Fender's blue butterfly and *Lupinus sulphureus* ssp. *kincaidii* historically occurring in the oak/savannas were probably the first to be lost to succession and development. Most of the remaining populations were found in the valley floor prairies. *Lupinus sulphureus* ssp. *kincaidii* and many of the Fender's blue butterfly nectar sources do not tolerate decreases in available light resulting from dense canopy closure as prairies gradually grow into woodlands in the absence of disturbance (Schultz *et al.* 2003, p. 69). *Erigeron decumbens* var. *decumbens* typically occurs where woody cover is

nearly absent and where herbaceous vegetation cover is low in stature relative to the surrounding areas (Clark *et al.* 1993, p. 22).

Native Willamette Valley prairies are predominantly low-stature communities with most plant foliage occurring within 8 inches (20 cm) of the soil, but with flowering stalks of some of the grasses reaching up to 59 inches (150 cm) in height (Wilson 1998a, p. 2, 1998b, p. 2). Maintaining the stature of the prairie habitat that surrounds the patches of *Lupinus sulphureus* ssp. *kincaidii* and *Erigeron decumbens* var. *decumbens* is important for the conservation of these species. *Lupinus sulphureus* ssp. *kincaidii* seedlings are more numerous in shortgrass prairie habitat without tall competing vegetation (Severns in review, p. 9). Shading, whether by native or non-native vegetation, is likely to hamper *L. sulphureus* ssp. *kincaidii* seed germination and germinant survival, although reproducing plants may be able to persist in shaded conditions (Severns in review, p. 10, 11). The shortgrass prairie stature is also important for the conservation of the Fender's blue butterfly (Schultz *et al.* 2003, p. 69). This butterfly is more vigorous in the full sun of open habitats, which provide conditions that promote nectaring and ovipositioning (Schultz *et al.* 2003, p. 68).

As previously identified, populations of *Lupinus sulphureus* ssp. *kincaidii* occurring in Douglas County, Oregon, have been documented in atypical habitat for the species (Barnes 2004, p. 95). The Douglas County populations are in wooded areas dominated by *Pseudotsuga menziesii* (Douglas-fir), *Arbutus menziesii* (Pacific madrone), and other trees and shrubs (Barnes 2004, p. 102) with canopy cover ranging from 50 to 80 percent (Barnes 2004, p. 102). Because these populations represent the southern most extent of this species' range, they may be adapted to tolerate more extreme habitat and/or other environmental conditions.

Moisture

Plant communities in prairie ecosystems mainly vary due to the differences in moisture attributed to elevation, slope, and soil permeability (Jackson 1996, p. 9). The Willamette Valley prairies have been categorized into two habitat types, wet prairie and upland prairie (Jackson 1996, p. 9). The wet prairie habitat is defined as areas of low relief, with poor drainage and hydric, clayey soils (Jackson 1996, p. 9), dominated by bunchgrasses, most predominately *Deschampsia caespitosa* (Clark *et al.* 1993, p. 18; Jackson 1996, pp. 9, 10). Jackson (1996, p. 9) describes the term ''upland prairie'' as misleading because the habitat largely occurs on the valley floor. A few upland prairie habitat patches occur on colluvium upland soils (*i.e.*, poorly sorted debris that has accumulated at the base of slopes, in depressions, or along small streams through gravity, soil creep, and local wash (Jackson 1996, p. 10)), but many occur on soils not considered upland, such as terraces, alluvium, and even floodplain soils (Clark *et al.* 1993, p. 20; Jackson 1996, p. 10; Wilson *et al.* 2003, p. 79). Although many of the habitat patches supporting the Fender's Blue Butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens* occur on the valley floor, they have been characterized as ''upland prairies'' because of their drier conditions, which are attributed to better draining soils or local variations in topography (Jackson 1996, p. 10). This upland prairie habitat is typically characterized by the vegetation that thrives in these well-drained conditions (associated species previously identified) (Jackson 1996, p. 10).

Erigeron decumbens var. *decumbens* grows in both wet and upland prairies. The populations in wet prairies tend to occur in the driest portions of the wet prairie habitat. *Erigeron decumbens* var. *decumbens* grows in the driest habitats in which *Deschampsia caespitosa* can grow, but prefers slightly dryer microsites where *D. caespitosa* is sparse (Clark *et al.* 1993, p. 18). *Lupinus sulphureus* ssp. *kincaidii* populations occur predominately in upland prairie habitat with a few occurring in the transitional areas between wet and upland prairie habitats. The Fender's blue butterfly largely occurs in upland prairies; however, several adult nectar sources occur in wet prairies and are utilized by the butterfly when wet prairie patches are adjacent to lupine patches.

Reproduction

Fender's blue butterfly

Adult Fender's blue butterflies emerge in May and females lay their eggs on the underside of lupine leaves. The butterfly uses the following three lupine species as host plants for oviposition: *Lupinus sulphureus* ssp. *kincaidii*, *L. arbustus*, and *L. albicaulis*. A few weeks after oviposition, the eggs hatch and the larvae eat lupine leaves for a few weeks until the lupines senesce. After lupine senescence, the larvae enter an extended diapause that lasts until the following March. When the lupine plants resurface, the larvae emerge from the soil litter and begin eating the young lupine leaves until the larvae pupate in mid-April (Schultz *et al.* 2003, p. 64). Adult females likely lay up to 350 eggs (Schultz *et al.* 2003, pp. 66, 67) over their estimated 15-day lifespan. Based on survivorship information (Schultz and Crone 1998, p. 247; Schultz *et al.* 2003, p. 67), we estimate that of the 350 eggs, approximately 1.5 will survive to adulthood, indicating that Fender's blue butterfly survivorship is very low.

Native prairie composition, including short-stature grasses, provides the full sun conditions required for *Lupinus sulphureus* ssp. *kincaidii* plants to produce an abundance of leaves on which Fender's blue butterfly lays eggs. Invasive species often cover the lupine leaves, making it difficult for the butterfly to oviposit. Native nectar sources are of higher quality than non-native adult food sources, and butterfly populations dependent on low quality exotic vetches may spend more of their limited adult flight time nectaring, and less time ovipositioning (Schultz *et al.* 2003, p. 65).

Schultz and Crone (2001, pp. 1889–1890) found that Fender's blue butterfly population patterns are influenced by habitat patch size through residence time of female butterflies; butterflies emigrate from smaller patches more quickly than they do from larger patches. This directly influences the numbers and spatial distribution of eggs, and therefore the future number of butterflies. The tendency of the Fender's blue butterfly to quickly disperse from small, isolated lupine patches increases the risk they won't find another suitable oviposition site. This, in turn, reduces the total lifetime reproduction to well below the 350 egg maximum reported by Schultz *et al.* (2003, pp. 66, 67). Because Fender's blue butterflies only live for approximately 2 weeks, a change in residence time of even 1 day may markedly influence the distribution of eggs.

Lupinus sulphureus ssp. *kincaidii*

Lupinus sulphureus ssp. *kincaidii* flowers possess a pump or piston arrangement for cross-pollination by insects, as is common in other lupines (Kaye 1999, p. 50). Pollination of *L. sulphureus* ssp. *kincaidii* appears to be carried out by bees visiting the flowers; the relatively small flowers attract only small bees (Wilson *et al.* 2003, p. 74). Several bee species have been documented commonly visiting *L. sulphureus* ssp. *kincaidii* flowers, such as small bumblebees (*Bombus mixtus* and *B. californicus*) and the European honey bee (*Apis mellifera*). As described in Wilson *et al.* (2003, p. 75), insect pollination appears to be critical for successful seed production in *L.*

sulphureus ssp. *kincaidii*. The maturation of the flowers of *L. sulphureus* ssp. *kincaidii* promotes outcrossing pollination because of the way they mature from the bottom of the inflorescence to the top (Wilson *et al.* 2003, p. 75).

Inbreeding depression may limit the seed set and seed fitness of smaller lupine populations (Severns 2003a, p. 225; Wilson *et al.* 2003, p. 75). Conserving *Lupinus sulphureus* ssp. *kincaidii* will likely require the outcrossing of populations by planting new individuals from different sources near existing populations, and increasing pollinator connectivity between existing populations (Severns 2003a, p. 227).

Erigeron decumbens var. *decumbens*

This species spreads vegetatively via rhizomes over short distances (about 4 inches (10 cm)) (Kaye 2000, p. 1) and the plants often grow in clumps, making it difficult to distinguish individuals. Sexual reproduction is facilitated by insect pollination. Pollinators include species such as the field crescent butterfly (*Phyciodes campestris*), sweat bees (Halictidae spp.), and a syrphid fly (*Toxomerous occidentalis*) (Jackson 1996, p. 81). Seeds are dispersed by wind, but over very short distances (Clark *et al.* 1993, p. 33). Research indicates that scarification stimulates germination, but the mechanism for seed coat scarification (scoring of the seed coat) in the wild is unknown (Clark *et al.* 1995b, pp. 14–15). Germination of *Erigeron decumbens* var. *decumbens* seeds occurs mostly in April and May (Clark *et al.* 1997, p. 45) and flowering is concentrated in June and early July (Meinke 1982, p. 136).

Jackson (1996, p. 2) reports that remaining populations of *Erigeron decumbens* var. *decumbens* may be experiencing reproductive difficulties because they are extremely small and isolated from one another. Gene flow between individuals of a sexually-reproducing species is requisite for their persistence (Jackson 1996, pp. 2–3). Research results indicate that the *E. decumbens* var. *decumbens* is at risk of inbreeding depression (Jackson 1996, p. 88). To reduce this risk and to conserve the species, it will likely be necessary to increase the number of habitat patches located in close proximity to one another such that functioning metapopulations are restored. This population arrangement increases the opportunities for insects to carry pollen between individual plants and increases the likelihood of reproductive success of *E. decumbens* var. *decumbens*.

Areas Representative of the Historic Geographical and Ecological Distributions of a Species

Fender's blue butterfly

Conservation recommendations for the Fender's blue butterfly include having a reserve design with a minimum of two populations for each occupied county (eight total) so that a local back-up is always available in case of site extirpations (Hammond and Wilson 1993, p. 45). By maintaining viable metapopulations across the species' range, the distribution would be wide enough to buffer the species from catastrophes that may occur in portions of its range (Schultz *et al.* 2003, p. 68).

Recommendations for reserve design criteria for this species include preserving populations that occur under unique conditions, as distinct ecological segregates (Hammond and Wilson 1993, p. 45). Therefore, populations occurring in unique habitat conditions should be conserved across the range of the species. A few unique Fender's blue butterfly populations occur on valley hillsides, such as Coburg Ridge, but the vast majority of remaining sites occur on the valley floor under different habitat conditions (Hammond and Wilson 1993, p. 45). The unique habitat supporting these valley hillside populations appears to be stable climax grasslands due to the presence of deep, fine-textured, self-mulching soils or Ustic (very dry) lithosols (Franklin and Dyrness 1973, p. 119; Hammond 1994, p. 45).

Lupinus sulphureus ssp. *kincaidii*

Lupinus sulphureus ssp. *kincaidii* populations in Douglas County, Oregon and Lewis County, Washington, represent the furthest southern and northern extent of the current range, respectively. These populations are highly disjunct and isolated from the Willamette Valley populations with approximately 81 miles (131 km) between the northernmost Willamette Valley population to the Lewis County, Washington population, and approximately 54 miles (87 km) separating Oregon's south Willamette Valley populations from the Douglas County populations.

The primary habitat for *Lupinus sulphureus* ssp. *kincaidii* is open upland prairie and meadow edges, often near oak trees with a relatively open canopy cover. Most of the Douglas County, Oregon, populations appear to tolerate more shaded habitat conditions with canopy cover of 50 to 80 percent (Barnes 2004, p. 102). Because these populations represent the southern-most extent of this species' range, they may be adapted to tolerate more extreme habitat or other environmental conditions. Therefore, conservation of *L. sulphureus* ssp. *kincaidii* populations across their current range will require conservation of areas in Lewis County, Washington and Douglas County, Oregon, in addition to areas in the Willamette Valley, Oregon (Gisler *et al.*, in litt., 2005, pp. 3, 11; Robinson *et al.*, *in litt.*, 2005, pp. 2, 3).

Erigeron decumbens var. *decumbens*

Erigeron decumbens var. *decumbens* occurs on wetland prairie dominated by *Deschampsia caespitosa.* It also occurs on a few upland prairie sites characterized by a mix of native and non-native bunchgrasses (Jackson 1996, p. 39; Clark 2000, p. 3). Because the species occurs in both wet prairie and upland prairie habitat, conservation of representative populations in both of these habitat types is important to its conservation. As previously described, the long-term persistence of small populations will likely depend on augmentation with propagated individuals (Clark *et al.* 1995b, p. 23). Because there are very few surviving populations of *E. decumbens* var. *decumbens*, and they occur in both wet and upland prairie habitats, population augmentations must be sensitive to geographic variation within the species.

Although it may be possible to reestablish functioning metapopulations across the range of the Fender's Blue Butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens*, it is highly unlikely that these metapopulations will ever be reconnected because of the distance between existing populations in an extremely fragmented landscape. Each metapopulation will therefore need to be independently viable, supporting multiple populations to reduce the risk of localized extinction.

With so few remaining populations of each of these species, losing any one of the populations through a natural or human-caused event will measurably increase the likelihood of extinction for that species. For example, an accidental spraying of insecticide or herbicide on a Fender's blue butterfly and *Lupinus sulphureus* ssp. *kincaidii* population could eliminate the entire population of one or both species. Hammond (2001, pp. 3, 4 and 2002, pp. 3, 4) documents a substantial Fender's blue butterfly population decline in 1998 as the result of roadside herbicide spraying and bulldozer scraping throughout large portions of the habitat supporting a population in Yamhill County. Fortunately, this population is supported by three distinct lupine

patches, and only two of the patches were impacted. The butterflies from the third patch were able to re-colonize the impacted areas, and the Fender's blue butterfly population was able to recover by 2001 (Hammond 2002, pp. 3, 4). Although the likelihood of such an event is variable and difficult to predict, the extant small populations are at high risk of extirpation when they do occur.

Primary Constituents Elements for the Fender's blue butterfly, Lupinus sulphureus ssp. *kincaidii, and Erigeron decumbens* var. *decumbens*

Pursuant to our regulations, we are required to identify the known physical and biological features (primary constituent elements (PCEs)) essential to the conservation of the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens.* All areas designated as critical habitat for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens* are occupied, are within the species' historic geographic range, and contain sufficient PCEs to support at least one life history function.

Based on our current knowledge of the life history, biology, and ecology of the species and the requirements of the habitat to sustain the essential life history functions of the species, we have determined that the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens* PCEs are as follows:

The PCEs for Fender's blue butterfly are:

(1) Early seral upland prairie, wet prairie, or oak savanna habitat with a mosaic of low-growing grasses and forbs, an absence of dense canopy vegetation, and undisturbed subsoils.

(2) Larval host plants *Lupinus sulphureus* ssp. *kincaidii*, *L. arbustus*, or *L. albicaulis*;

(3) Adult nectar sources, such as: *Allium acuminatum* (tapertip onion), *Allium amplectens* (narrowleaf onion), *Calochortus tolmiei* (Tolmie's mariposa lilly), *Camassia quamash* (small camas), *Cryptantha intermedia* (clearwater cryptantha), Eriophyllum lanatum (wooly sunflower), *Geranium oreganum* (Oregon geranium), *Iris tenax* (toughleaf iris), *Linum angustifolium* (pale flax), *Linum perenne* (blue flax), Sidalcea campestris (Meadow checkermallow), Sidalcea virgata (rose checker-mallow), *Vicia cracca* (bird vetch), *V. sativa* (common vetch), and *V. hirsute* (tiny vetch);

(4) Stepping-stone habitat, consisting of undeveloped open areas with the physical characteristics appropriate for supporting the short-stature prairie oak savanna plant community (well drained soils), within 1.2 miles (~2 km) of natal lupine patches.

The PCEs for *Lupinus sulphureus* ssp. *kincaidii* are:

(1) Early seral upland prairie, or oak savanna habitat with a mosaic of low-growing grasses and forbs, and spaces to establish seedlings or new vegetative growth; an absence of dense canopy vegetation; and undisturbed subsoils.

(2) The presence of insect outcrossing pollinators, such as *Bombus mixtus* and *B. californicus*, with unrestricted movement between existing lupine patches.

The PCE for *Erigeron decumbens* var. *decumbens* is:

(1) Early seral upland prairie, wet prairie, or oak savanna habitat with a mosaic of low-growing grasses and forbs, and spaces to establish seedlings or new vegetative growth; an absence of dense canopy vegetation; and undisturbed subsoils.

This designation is designed for the conservation of PCEs necessary to support the life history functions which were the basis for the proposal. Because not all life history functions require all the PCEs, not all critical habitat will contain all the PCEs.

Units are designated based on sufficient PCEs being present to support one or more of the species's life history functions. Some units contain all PCEs and support multiple life processes, while some units contain only a portion of the PCEs necessary to support the species' particular use of that habitat. Where a subset of the PCEs is present at the time of designation, this rule protects those PCEs and thus the conservation function of the habitat.

Methods

As required by section 4(b)(1)(A) of the Act, we use the best scientific data available in determining areas that contain the features essential to the conservation of the Fender's blue butterfly, *Lupinus sulphureus* ssp. *Kincaidii*, and *Erigeron decumbens* var. *decumbens.*

We reviewed available information that pertains to the habitat requirements of these species and evaluated all known species locations using data from the following sources—spatial data for known species locations from the Oregon Natural Heritage Information Center (ORNHIC 2004, entire data set), Washington Natural Heritage Program (WNHP 2005, entire data set), Corps (Corps 2004, entire data set), and Bureau of Land Management (BLM 2005, entire data set); United States Geological Survey (USGS 2000, data set for species range) 1:24,000 scale 3.75 digital orthophotographic quarter quadrangle images; recent biological surveys and reports; site-specific habitat evaluations (USFWS 2003a, pp. 1–34; USFWS 2004a, pp. 1–576, 2004c, pp. 1–7); data in reports submitted during section 7 consultations and by biologists holding section 10(a)(1)(A) recovery permits; research published in peer-reviewed articles and presented in academic theses or reports; and discussions with species experts.

Criteria Used To Identify Critical Habitat

We are designating critical habitat for specific areas that we have determined were occupied at the time of listing and that contain the primary constituent elements for Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens.* Prior to the critical habitat proposal, Fender's blue butterfly occupancy was recorded by simply reporting the location of occupied lupine patches (Schultz and Dlugosch 1999, pp. 231–232). However, as previously described, adult butterflies utilize a variety of prairie species in addition to the lupine habitat. As a result, the final listing rule under-represented the known range of the Fender's blue butterfly at the time of listing. Additionally, there are inconsistencies in the literature regarding how occupancy is documented. Often the occurrence data are presented by site; other times they are presented by population (Schultz *et al.* 2003, p. 62) or by documenting occupied prairie remnants (Schultz 1998, p. 284; Schultz 2001, p. 1008), and at least one publication interchanges populations and sites (Wilson *et al.* 1997, p. 5). Furthermore, there is often an inconsistency in the number of populations that are reported since there is no defined convention for grouping sites into populations. For example, Severns (2003a, p. 222) documents 13 isolated populations based on Schultz's (1998, p. 286) discussion of isolated prairie remnants, while other documents identify 16 populations (Hammond 2004, p. 1; Schultz *et al.* 2003, p. 62). For this critical habitat designation, we have identified prairie habitat supporting Fender's blue butterfly occurrences known at the time of listing, regardless of the presence or absence of lupine. In order to determine the extent of the area supporting these populations, we identified those areas within 1.2 miles (2 km) (Fender's blue butterfly average dispersal distance) that contain the

features essential to the conservation of this species.

To identify areas of habitat containing the features essential for the conservation of all three species, we selected areas that represent the current distribution of each species, are of sufficient quality (including size) to contribute to functioning metapopulations (including areas necessary for connectivity between populations), or that represent unique ecological conditions.

We selected occupied areas exhibiting the highest quality habitat by evaluating the following factors for each known occurrence—the presence of prairie indicator species, degree of habitat degradation (exotic species and succession to shrubs and trees), population size, and available surrounding prairie habitat to support population growth. Specifically, we selected occupied prairie habitat supporting a minimum of three prairie indicator species and providing adequate available habitat for population growth (surrounded by short-grass prairie habitat), and areas where habitat management activities would be effective at controlling threats (USFWS 2004a, entire data set; USFWS 2005, pp. 1–19).

We then selected areas that provide for population connectivity. As described in the Primary Constituent Elements section, connectivity is central to re-establishing functioning metapopulations for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens* and to ensure their long-term persistence. For the Fender's blue butterfly, we evaluated areas providing the features essential to the conservation of the species within 1.2 miles (2 km) of the largest populations across the range of the species. For both *L. sulphureus* ssp. *kincaidii* and *E. decumbens* var. *decumbens*, we evaluated occupied areas within 5 miles (8 km) (estimated pollinating distance of the honeybee (*Apis mellifera*)) of the largest populations across the range of both species.

All areas occupied at the time of listing that support the PCEs were screened using the criteria below, and the results were used to delineate the habitat containing the features essential to the conservation of the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens:*

(1) We used our best professional judgment to select prairie remnants supporting core populations distributed across their respective ranges. Based on site-specific evaluations completed during field verification of occurrence data (USFWS 2003a, pp. 1–34, 2004a, entire data set), and various scientific reports (Severns 2004, pp. 1–12; Hammond 2004, pp. 1–35; Fitzpatrick 2005, pp. 1–11; Kuykendall and Kaye 1993a, pp. 1–41 + append., 1993b, pp. 1–16 + append.; Clark *et al.* 1993, pp. 1–55 + append.), core sites were identified as the largest, best-quality sites that significantly contribute to both local metapopulation function and rangewide distribution.

From the areas selected according to the above principles, we eliminated some areas from further consideration if (1) the area was degraded and unlikely to be restorable; and (2) the area was small, highly fragmented, or severely isolated so that it would provide little or no long-term conservation value. These sites may prove to be important in the future if new species occurrences are identified in their vicinity.

(2) In addition to habitat patches meeting criteria 1 above, we evaluated all prairie habitat in proximity to core populations. Specifically, these areas include habitat patches meeting the criteria below:

(a) For the Fender's blue butterfly, we selected areas providing the Primary Constituent Elements within 1.2 miles (2 km) of a core Fender's blue butterfly population. These areas generally occur adjacent to or between core Fender's blue butterfly populations.

(b) For *Lupinus sulphureus* ssp. *kincaidii*, we selected areas located within 5 miles (8 km) of core populations supporting at least 0.25 ac (0.1 ha) of plant cover (Gisler *et al.*, *in litt.*, 2005, pp. 6, 7), and occupied areas with enough surrounding prairie habitat to support 0.25 ac (0.1 ha) of plant cover;

(c) For *Erigeron decumbens* var. *decumbens,* we selected areas located within 5 miles (8 km) of core populations supporting a minimum of 200 plants (Robinson *et al., in litt.,* 2005, p. 4; Zwartjes, *in litt.,* 2005, p. 2), and occupied areas with enough surrounding prairie habitat to support a minimum of 200 plants. Because we do not have plant counts for all populations, we used *Erigeron decumbens* var. *decumbens* average density information (Clark *et al.* 1993, p. 23, 42) to estimate the area needed to support 200 plants, which equaled 0.6 ac (0.24 ha).

After screening prairie remnants using criteria 1 and 2 above, we completed a review of these areas to ensure populations occurring in atypical ecological settings were also included. Specifically, we determined that the selection criteria assured inclusion of Fender's blue butterfly populations occurring on valley hillsides that may be climax grasslands, and of *Erigeron decumbens* var. *decumbens* populations occurring on both wet and upland prairie habitats. Because selection criteria number 1 identified core populations across the range of each species, it inherently included *Lupinus sulphureus* ssp. *kincaidii* populations in Douglas County, Oregon, where plants tend to be more shade tolerant.

The PCEs were examined in combination with habitat maps, land use maps, aerial photographs, and occurrence data for populations meeting the above criteria, in order to identify the extent of prairie habitat supporting viable species occurrences. By working with local land managers and scientific experts familiar with the prairie habitat patches, we identified the prairie habitat boundaries for the occurrences meeting our criteria and digitized these prairie boundaries. We then asked the local land managers and scientific experts to review prairie boundary maps to ensure that only areas able to support the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii,* and *Erigeron decumbens* var. *decumbens* were included in our prairie boundaries. The proposed critical habitat units were delineated by overlaying extant species locations meeting criteria 1 and 2 above, and mapping prairie boundaries onto 2000 USGS 1:24,000-scale 3.75 orthophotographic quadrangle images. The mapped prairie boundaries formed the boundaries of critical habitat units.

When determining final critical habitat map boundaries, we made every effort to avoid including developed areas such as buildings, paved areas, and other structures that lack any PCEs for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii,* and *Erigeron decumbens* var. *decumbens.* Any such structures and the land under them inadvertently left inside critical habitat boundaries of this final rule are excluded by text and are not designated as critical habitat. Therefore, Federal actions limited to these areas would not trigger section 7 consultation, unless they affect the species or primary constituent elements in adjacent critical habitat.

We designated critical habitat in areas that we determined were occupied at the time of listing, and that contain sufficient primary constituent elements (PCEs) to support life history functions essential for the conservation of the species. All units were designated based on sufficient PCEs being present to support Fender's blue butterflies, *Lupinus sulphureus* ssp. *kincaidii,* and *Erigeron decumbens* var. *decumbens* life

processes. Some units contained all PCEs and supported multiple life processes. Some segments contained only a single PCE necessary to support use of that habitat by Fender's blue butterfly, *L. sulphureus* ssp. *kincaidii,* and *E. decumbens* var. *decumbens.*

A discussion of each area designated as critical habitat is provided in the unit descriptions below.

Special Management Considerations or Protections

When designating critical habitat, we determine whether areas occupied at the time of listing and containing the primary constituent elements may require special management considerations or protections.

Maintenance of open habitat conditions

Since most prairie habitat within the range of these species is early-seral, active management is necessary for the conservation of all populations of Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii,* and *Erigeron decumbens* var. *decumbens* that occur in the proposed units described below. Without active management or natural disturbance, many populations may be lost to habitat succession (Wilson 1998a, p. 15, 1998b, p. 13; Wilson *et al.* 2003, p. 80) as trees and shrubs grow and outcompete early seral plants and shade or crowd out important early seral species such as *L. sulphureus* ssp. *kincaidii, E. decumbens* var. *decumbens,* and Fender's blue butterfly nectar sources. Left unmanaged, entire lupine populations in these early seral habitats may disappear (Wilson *et al.* 2003, pp. 79, 80).

Fender's blue butterfly and *Lupinus sulphureus* ssp. *kincaidii*

Fender's blue butterfly and *Lupinus sulphureus* ssp. *kincaidii* populations respond positively to habitat restoration. Mowing, burning, and mechanical removal of weeds, when done appropriately, have all been shown to benefit Fender's blue populations. At sites managed by The Nature Conservancy (TNC), the Fender's blue butterfly and *L. sulphureus* ssp. *kincaidii* populations increased following removal of noxious non-native plants such as *Rubus discolor* (Himalayan blackberry) and *Cytisus scoparius* (Scotch broom) (Fitzpatrick 2005, pp. 6, 7, 10, 11, 20). At Baskett Slough National Wildlife Refuge in western Oregon, Wilson and Clark (1997, p. 10, 11) studied the effects of controlled fire and mowing on the Fender's blue butterfly and its native upland prairie. Although fire killed all larvae in treated patches, nearby unburned (untreated) patches provided a source of female Fender's blue butterflies that were able to recolonize the entire burned (treated) area. Wilson and Clark (1997, pp. 10, 23) also found that in the year following mowing and burning treatments, Fender's blue butterfly eggs were 10 to 14 times more abundant in treated plots than in undisturbed control plots. Woody plants were reduced by 45 percent with burning and by 66 percent with mowing. At the Corps' Fern Ridge Reservoir, the Fender's blue population has increased dramatically since fall mowing of *L. sulphureus* ssp. *kincaidii* patches has been implemented. The abundance of Fender's blue butterfly eggs and *L. sulphureus* ssp. *kincaidii* has increased as blackberry bushes have been controlled in several test plots located on BLM lands in Eugene, Oregon (Kaye and Cramer 2003, p. 10). In general, Fender's blue butterfly egg abundance increased substantially at sites treated to control non-native weeds (Schultz *et al.* 2003, p. 69).

Erigeron decumbens var. *decumbens*

Since periodic fire is believed to have historically maintained open prairie conditions, the use of prescribed burning as a maintenance tool has been investigated for restoring wet prairie habitats (Clark and Wilson 1998, p. 2). Studies investigating the effects of fire on *Erigeron decumbens* var. *decumbens* populations have been inconclusive as to whether fire promotes or inhibits populations (Wilson and Clark 1997, p. 1). Additionally, research efforts investigating the control of woody vegetation in wet prairies demonstrated that none of the treatments (fire, mowing, and hand removal of woody vegetation) proved to be more effective than the others (Clark and Wilson 2000, p. 2). Mowing with the removal of cut material increased the presence of non-native herbaceous species and should not be used as a management tool (Clark and Wilson 2000, p. 2). Because *Erigeron decumbens* var. *decumbens* does not tolerate the presence of woody vegetation, habitat management will be required for the long-term persistence of this species. Further investigation is needed to determine the most appropriate techniques for managing available habitat. Also, due to the low reproductive capability of the species, conservation of the *E. decumbens* var. *decumbens* will likely depend on artificially augmenting populations in areas where woody vegetation has been removed (Clark 2000, pp. 9–10).

Reduce Habitat Fragmentation and Increase Population Size

The Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii,* and *Erigeron decumbens* var. *decumbens* are at risk of inbreeding depression and site extirpation across their respective ranges because populations are small and isolated from one another (Jackson 1996, p. 6; Schultz *et al.* 2003, p. 62, Severns 2003a, p. 222, 2003b, p. 334). All three species will benefit from reestablishing prairie plant patches in proximity to core populations.

Efforts have been made to establish stepping stones of lupine habitat between core Fender's blue butterfly populations occurring on BLM lands and Corps lands. A small patch of *Lupinus sulphureus* ssp. *kincaidii* planted in 2001, between two core Fender's blue butterfly populations, became occupied by the species during the 2004 field season (Severns 2004, pp. 7–8). While inconclusive, this observation provides evidence that Schultz's (1998, p. 291) recommended stepping-stone reserve design may allow for successful dispersal between populations (Severns 2004, p. 12). Restoration of a metapopulation structure is considered necessary to restore viable populations (McIntire *et al.* in review, p. 1).

McIntire et al. (in review, p. 1–47) completed a study to determine if fragmented prairie remnants near Eugene, Oregon, can be restored to a large functioning metapopulation that will persist over the long term. Several populations occur in this area but they are too far apart for the butterfly to disperse (greater than 1.2 miles (2 km)), and there are few intervening habitat patches. This study specifically looked at the conservation potential of restorable land located between the populations in a matrix of urban and agricultural land uses. Results of this study indicate that restoring existing prairie habitat to high quality may result in viable but unconnected populations unless habitat between populations is also reestablished.

Expanding *Erigeron decumbens* var. *decumbens* populations will require more investigation into the roles of sexual and vegetative reproduction of this species. If sexual reproduction proves to be most important for population recruitment, mangers will need to focus on strategies that promote flowering, seed production, and seedling establishment (Clark 2000, p. 9). However, if vegetative regeneration is predominant, managers will need to focus on activities that promote ramet (refers to individual plants in a *clump,*

each portion of which is identical with the original parent plant) production (Clark 2000, p. 9). Clark et al. (1995b, pp. 22–23) found that vegetative propagation is a viable technique for *E. decumbens* var. *decumbens;* populations may also be increased by sowing seeds under appropriate conditions, although this technique appeared to be less effective than vegetative propagation.

Roadside, Power Right-of-Way, and Railroad Maintenance

Many remaining populations of Fender's blue butterfly, *Lupinus sulphureus* ssp. kincaidii, and *Erigeron decumbens* var. *decumbens* populations occur in road rights of ways and are adversely affected by maintenance activities such as mowing or spraying of herbicides at the wrong time of year. A few *L. sulphureus* ssp. *kincaidii* populations along roads persist, likely because the routine maintenance provides open, full-sun conditions characteristic of *L. sulphureus* ssp. *kincaidii* habitat.

Protection

Several *Lupinus sulphureus* ssp. *kincaidii* and *Erigeron decumbens* var. *decumbens* populations occur on private lands and consequently remain unprotected by existing state or Federal statutes, which do not protect listed plants on private lands (Wilson *et al.* 2003, p. 72). Limited conservation of plant populations may be provided under programs administered by the USDA Natural Resources Conservation Service, such as the Wetland Reserve Program. Current program rules prioritize disturbed agricultural lands over prairie remnant habitats; this limits the programs' ability to protect existing plant populations that typically do not occur in disturbed agricultural lands. Wilson *et al.* (2003, p. 80) concluded that, lacking statutory protection, many of the plant populations occurring on private lands will likely be lost to development, agriculture, and invasion of weeds.

The Fender's blue butterfly depends primarily on *Lupinus sulphureus* ssp. *kincaidii* as a larval food source and for egg laying (ovipositioning). When populations of *L. sulphureus* ssp. *kincaidii* are destroyed, it also reduces the opportunity to expand existing Fender's blue butterfly populations.

Critical Habitat Designation

We are designating 13 units as critical habitat for the Fender's blue butterfly, 13 units for *Lupinus sulphureus* ssp. *kincaidii,* and 9 units for *Erigeron decumbens* var. *decumbens* (*see* Figure 1). The critical habitat areas described below represent our best assessment at this time of areas determined to be occupied at the time of listing, containing the primary constituent elements essential for the conservation of the species, and that may require special management.

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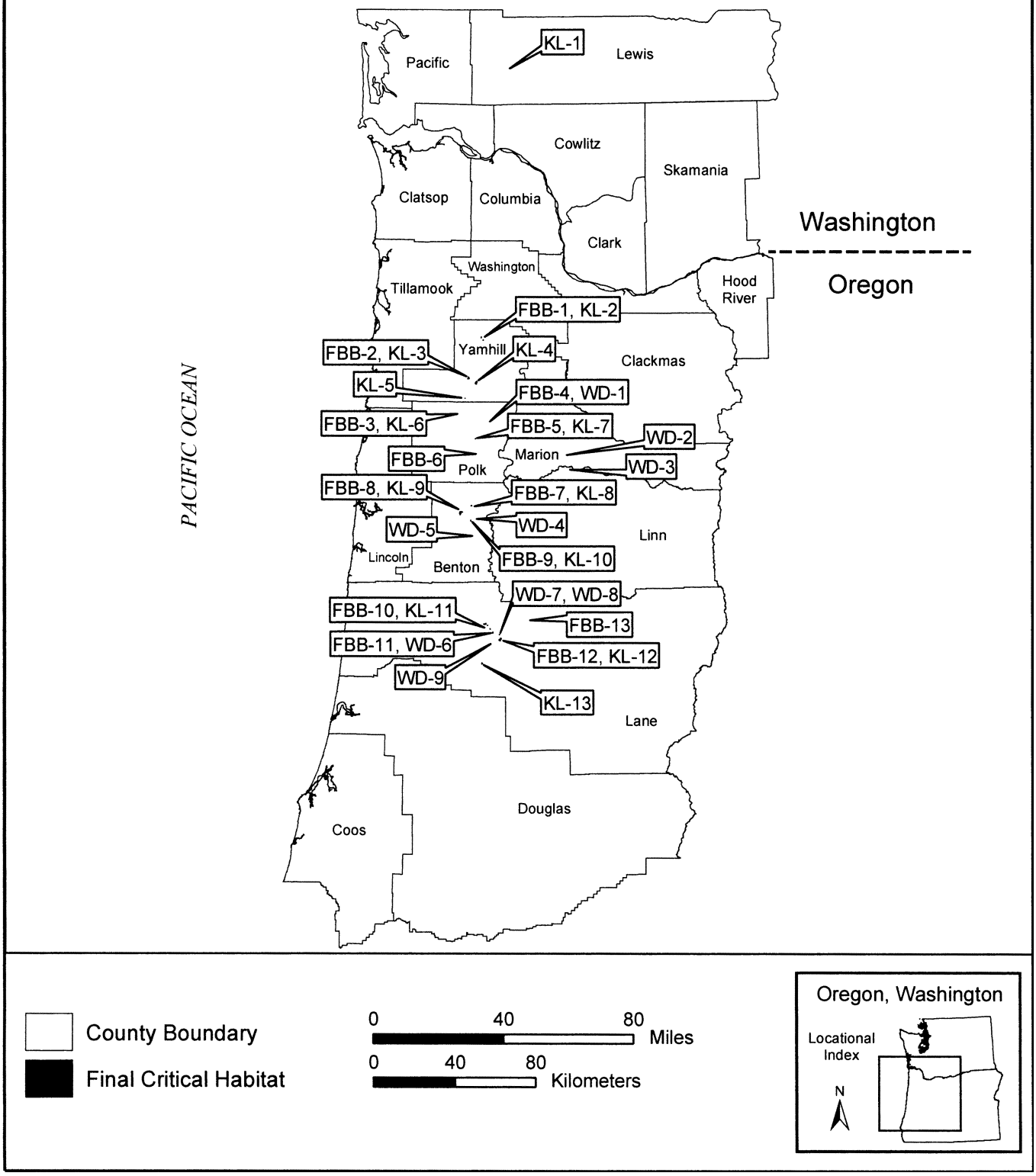
Figure 1, Index Map

Fender's Blue Butterfly (FBB) *(Icaricia icarioides fenderi), Lupinus sulphueus* ssp. *kincaidii* (Kincaid's Lupine (KL)), and *Erigeron decumbens* var. *decumbens* (Willamette Daisy (WD))



BILLING CODE 4310–55–C

Table 1 shows the lands being excluded from critical habitat pursuant to section 4(b)(2) of the Act, and Table 2 shows the approximate area designated as critical habitat for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *Kincaidii,* and *Erigeron decumbens* var. *decumbens* by land ownership and State.

TABLE 1.—APPROXIMATE AREA AC (HA) EXCLUDED FROM CRITICAL HABITAT FOR THE *Lupinus sulphureus* SSP. *Kincaidii* PURSUANT TO SECTION 4(B)(2) OF THE ACT

Location	Area proposed for designation	Excluded area
Lewis County, Washington (Private lands excluded).	4 ac (1.6 ha)	1.8 ac (0.7 ha).
Douglas County, Oregon (All Federal and private lands excluded).	100.4 ac (40.6 ha)	100.4 ac (40.6 ha).

TABLE 2.—APPROXIMATE AREA AC (HA) FOR CRITICAL HABITAT UNITS DESIGNATED FOR THE FENDER'S BLUE BUTTERFLY (FBB), *Lupinus sulphureus* SSP. *Kincaidii* (KL), AND *Erigeron decumbens* VAR. *decumbens* (WD)

Unit	Federal	State	County/city	Private	Total
FBB–1	0 (0)	0 (0)	0 (0)	20.3 (8.2)	20.3 (8.2)
FBB–2	0 (0)	0 (0)	0 (0)	51 (20.6)	51 (20.6)
FBB–3	0 (0)	2.5 (1)	0 (0)	1.1 (0.5)	3.6 (1.5)
FBB–4	628.6 (254.4)	0 (0)	0 (0)	535.8 (216.8)	1,164.4 (471.2)
FBB–5	0 (0)	0 (0)	0 (0)	12.3 (5)	12.3 (5)
FBB–6	0 (0)	0 (0)	0 (0)	18.3 (7.4)	18.3 (7.4)
FBB–7	0 (0)	1.8 (0.7)	0 (0)	9.7 (3.9)	11.5 (4.6)
FBB–8	0 (0)	0 (0)	0 (0)	716.7 (290)	716.7 (290)
FBB–9	0 (0)	0 (0)	0 (0)	48.5 (19.6)	48.5 (19.6)
FBB–10	307.8 (124.5)	0 (0)	17.8 (7.2)	161.8 (65.5)	487.4 (197.2)
FBB–11	175.7 (71.1)	2.5 (1)	13.9 (5.6)	36.7 (14.9)	228.8 (92.6)
FBB–12	0 (0)	0 (0)	0 (0)	114.4 (46.3)	114.4 (46.3)
FBB–13	0 (0)	0 (0)	0 (0)	132.5 (53.6)	132.5 (53.6)
Total	1,112 (450)	6.8 (2.8)	31.7 (12.8)	1,859.1 (752.4)	3,009.7 (1,218)
KL–1	0 (0)	0 (0)	0 (0)	4 (1.6)	4 (1.6)
KL–2	0 (0)	0 (0)	0 (0)	20.4 (8.2)	20.4 (8.2)
KL–3	0 (0)	0 (0)	0 (0)	51 (20.6)	51 (20.6)
KL–4	0 (0)	0 (0)	0 (0)	68.6 (27.8)	68.6 (27.8)
KL–5	0 (0)	1.7 (0.7)	0 (0)	0 (0)	1.7 (0.7)
KL–6	0 (0)	2.5 (1)	0 (0)	1.1 (0.5)	3.6 (1.5)
KL–7	0 (0)	0 (0)	0 (0)	12.3 (5)	12.3 (5)
KL–8	0 (0)	1.8 (0.7)	0 (0)	9.7 (3.9)	11.5 (4.6)
KL–9	0 (0)	0 (0)	0 (0)	171.6 (69.4)	171.6 (69.4)
KL–10	0 (0)	0 (0)	0 (0)	17.9 (7.2)	17.9 (7.2)
KL–11	56.6 (22.9)	0 (0)	0.5 (0.2)	7.5 (3.1)	64.6 (26.2)
KL–12	21.5 (8.7)	0 (0)	0 (0)	119.7 (48.4)	141.2 (57.1)
KL–13	0 (0)	0 (0)	0 (0)	16.2 (6.6)	16.2 (6.6)
Total	78.1 (31.6)	6 (2.4)	0.5 (0.2)	500 (202.3)	584.6 (236.5)
WD–1	41.2 (16.7)	0 (0)	0 (0)	0 (0)	41.2 (16.7)
WD–2	0 (0)	0 (0)	0 (0)	12.2 (4.9)	12.2 (4.9)
WD–3	0 (0)	0 (0)	0 (0)	58.3 (23.6)	58.3 (23.6)
WD–4	0 (0)	0 (0)	5.8 (2.3)	3.5 (1.4)	9.3 (3.8)
WD–5	0 (0)	0 (0)	0 (0)	38.5 (15.6)	38.5 (15.6)
WD–6	77.1 (31.2)	0 (0)	0 (0)	8.4 (3.4)	85.4 (34.6)
WD–7	128.3 (51.9)	6 (2.4)	0 (0)	31.4 (12.7)	165.7 (67.1)
WD–8	77.6 (31.4)	0 (0)	0.5 (0.2)	135.1 (54.7)	213.2 (86.3)
WD–9	0 (0)	0 (0)	0 (0)	94.1 (38.1)	94.1 (38.1)
Total	324.2 (131.2)	6 (2.4)	6.3 (2.5)	381.5 (154.4)	718 (290.7)

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii,* and *Erigeron decumbens* var. *decumbens,* below.

Fender's blue butterfly

In total, we are designating 13 critical habitat units, each of which represents areas of habitat containing the features essential to the conservation of existing core populations of Fender's blue butterfly throughout its range. Each unit was occupied at the time of listing, and each unit represents a population that is currently isolated from other populations. To simplify unit descriptions, we have grouped units that with proper management and restoration, and may function as larger connected metapopulations.

Unit 1 for Fender's blue butterfly (Units FBB–1A and 1B)

Units FBB–1A and 1B encompass approximately 6.2 ac (2.5 ha) and 14.1 ac (5.7 ha), respectively, of private land occurring within northern Yamhill County and within the Oak Ridge habitat network. The Oak Ridge butterfly population is supported by three separate habitat patches, and the population has been monitored annually since 1993 (Hammond 2004, pp. 1, 3). The population has become much larger over the last 3 years, with an estimated 259 butterflies in 2004 (Hammond 2004, pp. 3, 34). FBB–1A represents the northernmost known occupied habitat patch in the current range of Fender's blue butterfly, and occurs along both the east and west sides of Oak Creek Road. FBB–1B is located approximately 0.7 miles (1.1 km) south of FBB–1A along both the east and west sides of Oak Creek Road, near the junction with Fairdale Road. The prairie habitat within FBB–1A and FBB–1B contains the PCEs essential to the conservation of this core population.

In recent years the Oak Ridge butterfly metapopulation has been evenly distributed among the three lupine patches. However, 10 years of monitoring reports for this population indicate that the number of individuals supported by each habitat patch has increased and decreased annually, with one habitat patch disproportionately supporting the population each year. The population fluctuations documented at these sites are attributed to roadside maintenance and presence of invasive species (Hammond 2002, pp. 3, 4; Hammond 2004, pp. 5, 33). The overall population has remained relatively stable, likely because its distribution among the three habitat patches provides opportunity for recolonization of impacted habitat patches (Hammond 2004, pp. 4–5). The prairie habitat within and between FBB–1A and 1B should be managed to allow for growth and expansion of this relatively small population in order to achieve and maintain the population.

Unit 1 for Fender's blue butterfly contains habitat features that are essential to the continued persistence of the species' core population throughout its range. Establishing stepping-stone habitat between FBB–1A and 1B will contribute to a more connected functioning metapopulation. However, at this time we do not have enough information to identify additional potential habitat for population expansion that may be necessary to meet delisting criteria. The habitat identified in FBB–1A and 1B has the features essential to the conservation of Fender's blue butterfly; has one of the largest remaining Fender's blue butterfly metapopulations; supports the butterfly's primary host plant, *Lupinus sulphureus* ssp. *kincaidii;* occurs at the northernmost extent of the species' range (Hammond 2004, p. 5); and is surrounded by prairie habitat available for population expansion.

Unit 2 for Fender's blue butterfly (Unit FBB–2)

Unit FBB–2 consists of approximately 51 ac (20.6 ha) of private lands within southern Yamhill County. The Gopher Valley butterfly population has been monitored annually since 1995 (Hammond 2004, p. 7), and has remained stable with a relatively low number of individuals consistently being reported (compared to other stable populations) (Hammond 2004, p. 35). The *Lupinus sulphureus* ssp. *kincaidii* habitat supporting this population occurs in two habitat patches scattered along the east and west sides of Gopher Valley Road. The largest distance separating lupine patches is approximately 0.12 miles (0.2 km). This population is threatened by the limited availability of nectar sources, presence of invasive species, and roadside maintenance activities.

With proper management of the prairie habitat surrounding the population located within the FBB–2 unit boundary, the habitat provides opportunities for population growth and expansion of both Fender's blue butterfly and *Lupinus sulphureus* ssp. *kincaidii.* Unit FBB–2 provides ease of Fender's blue butterfly movement between lupine habitat patches, and to all the features essential to the conservation of the species. Given the increased size of the lupine patch at the Deer Creek Park site (Hammond 2005, p. 8), this area will substantially contribute to the conservation of the Fender's blue butterfly. The habitat in FBB–2 has the features essential to the conservation of Fender's blue butterfly; one of the largest remaining Fender's blue butterfly populations in this portion of the butterfly's range; supports one of Fender's blue butterfly's primary host plants; provides the foundation for the existence of the species in this portion of its range; and has surrounding prairie habitat available for population expansion. In addition, Hammond (2005, pp. 8, 9) identified an expanding *L. sulphureus* ssp. *kincaidii* population at Deer Creek Park that now supports Fender's blue butterfly, increasing the size and long-term viability of this metapopulation.

Unit 3 for Fender's blue butterfly (Unit FBB–3)

Unit FBB–3 encompasses approximately 3.6 ac (1.5 ha) of primarily State-owned lands within northern Polk County. The Mill Creek butterfly population has been monitored annually since 1993 (Hammond 1993, pp. 18, 24; Hammond 2004, pp. 9, 10) and the overall number of individuals has increased over the past 3 years (Hammond 2004, p. 10). The lupine habitat supporting this population occurs in two patches scattered along the northeast and southwest sides of Highway 22, near the intersection with Mill Creek Road. The Oregon Department of Transportation (ODOT) owns most of the habitat supporting this population. Hammond (2004, p. 10) documented the threats to this unit as largely the presence of invasive grasses and shrubs that have overgrown the habitat, suppressing the lupine and *Erigeron decumbens* var. *decumbens* populations occupying this prairie remnant.

Habitat management activities implemented by ODOT in 2000 resulted in a large growth flush of *Lupinus sulphureus* ssp. *kincaidii* and an increased number of Fender's blue butterflies. This demonstrates that appropriate management of this site can provide for population growth and expansion. The habitat in unit FBB–3 supports the butterfly's primary host plant; the Fender's blue butterfly population size has been increasing over the last few years.

Unit 4 for Fender's blue butterfly (Units FBB–4A and 4B)

Units FBB–4A and 4B encompass approximately 748.4 ac (302.9 ha) and 416.1 ac (168.4 ha), respectively, of private and Federal land occurring within northern Polk County. Units FBB–4A and 4B are located adjacent to Highway 22 approximately 5.5 miles (8.8 km) northeast of the City of Dallas. An estimated 64 percent of the habitat encompassed within Unit FBB–4 occurs within the boundaries of the Service's Baskett Slough National Wildlife Refuge (Refuge) and approximately 36 percent of the prairie habitat occurs on adjacent private lands. Refuge biologists have documented the occurrence of the PCEs throughout the habitat within FBB–4A and 4B and also the Fender's blue butterfly's utilization of these areas (USFWS 2005, Smith, *in litt.*a, pp. 2, 3).

Many of the populations occurring in FBB–4A have been monitored annually since 1993 (Hammond 2004, p. 17), and the populations occupy ten separate patches of *Lupinus arbustus* which are

scattered across the unit. Between 1993 and 2001, habitat conditions steadily declined in many areas due to encroachment of grasses and brush in the upland prairie habitat (Hammond 2004, p. 18). Such habitat conditions adversely impacted not only the Fender's blue butterfly but also the population of *Erigeron decumbens* var. *decumbens* supported within FBB–4A. Recent survey results indicate that this metapopulation increased dramatically in size during 2003–2004 (Hammond 2004, p. 18). The total population size was estimated at 223 individuals in 2001 and approximately 1,368 individuals in 2004.

Unit FBB–4B is located approximately 0.12 miles (0.2 km) from FBB–4A with predominately agricultural lands occurring between the areas supporting this metapopulation. Unit FBB–4 (FBB–4A and 4B) supports the largest known Fender's blue butterfly metapopulation and the largest contiguous occupied prairie patch in the range of the species. This relatively large, contiguous prairie habitat is one of a few occupied remnants occurring on valley hillsides; most remaining populations occur on the valley floor. The open nature of the lands occurring between FBB–4A and 4B increases the potential for individuals to successfully disperse among habitat patches. The habitat in this unit has the features essential to the conservation of the species; it supports the largest known metapopulation, consists of several connected populations and provides an abundance of nectaring and dispersal habitat that allows for population growth and expansion.

Unit 5 for Fender's blue butterfly (Unit FBB–5)

Unit FBB–5 consists of approximately 12.3 ac (5 ha) of private lands within the central portion of Polk County. Unit FBB–5 is located near the junction of Highway 223 and Oakdale Avenue and largely falls within the City of Dallas' urban-growth boundary. Although Hammond (Hammond and Wilson 1993, pp. 10, 15; 2004, pp. 10, 12) has estimated the size of the Dallas population since 1991 (Hammond 1996, p. 13), he documents that he has been unable to access the site for over seven years and has been limited to visually-obstructed roadside observations. The Fender's blue butterfly needs special management in this unit because the population is threatened by the limited availability of food plants, presence of invasive species, and the impacts associated with the encroachment of urban development. Hammond (2004, p. 12) has documented the removal of several acres of Fender's blue butterfly habitat adjacent to this unit over the last ten years for residential development.

Appropriate management of the prairie habitat within FBB–5 should provide opportunity for population growth and expansion population. Unit FBB–5 provides the habitat containing the features essential for the continued persistence of this core population.

Unit 6 for Fender's blue butterfly (Units FBB–6A and 6B)

Units FBB–6A and 6B encompass approximately 2.4 ac (1 ha) and 15.9 ac (6.4 ha), respectively, of private lands occurring within southern Polk County. Unit FBB–6A is located along McCaleb Road near Cooper Creek and Unit FBB–6B is approximately 0.8 mile (1.4 km) south of FBB–6A along Monmouth Highway. Several Fender's blue butterfly populations historically occurring south of Dallas, Oregon, have been extirpated over the last decade (Hammond 2004, p. 12, 13). The habitat encompassed within FBB–6 (FBB–6A and 6B) supports the core butterfly population occurring at the southern end of the Dallas/Polk County functioning network and has been monitored annually since 1994 (Hammond 2005, p. 16).

Reintroductions of *Lupinus sulphureus* ssp. *kincaidii* or augmentations may be necessary at extirpated sites to provide stepping-stone habitat between FBB–5 and FBB–6. Unit FBB–6 provides the habitat containing the features essential to the persistence of this core population, as evidenced by an increasing butterfly population size over the last few years; it is one of the largest remaining Fender's blue butterfly populations in this portion of its range and it is one of two core, isolated populations providing the ''backbone'' of the Dallas/Polk County functioning network.

The larval host plant found in FBB–6B is *Lupinus albicaulis,* and based on roadside observations, Hammond (2004, p. 12) estimates several hundred butterflies occupy this habitat. Since *L. albicaulis* is a short-lived perennial, Hammond (2004, p. 12) documents that without periodic disturbance this butterfly population may disappear more quickly than populations using *L. sulphureus* ssp. *kincaidii* and *L. arbustus* as a host plant. However, *L. albicaulis* is the primary host plant for Puget blue butterfly (*Icaricia icarioides blackmorei*) and appears to serve the Puget blue quite well (Schultz, *in litt.*b, 2005). Additionally, another roadside population (McTimmonds Valley) of Polk County Fender's blue butterfly supported by *L. albicaulis* (Hammond 2002, p. 15) has remained stable for over a decade (Hammond 2004, pp. 13, 14).

FBB–6A supports a roadside population of *Lupinus sulphureus* ssp. *kincaidii* and is located between FBB–6B and a Fender's blue butterfly site where, in spite of surveys, individuals have not been seen for 2 years. FBB–6A provides stepping-stone habitat for Fender's blue butterfly..

Units 7, 8, and 9 for Fender's blue butterfly (Units FBB–7, FBB–8, and FBB–9)

Units FBB–7, FBB–8, and FBB–9 collectively represent the areas of habitat containing the features essential to the conservation of the Fender's blue butterfly populations in northern Benton County. This area is located in the central region of the species' range and consists of two large and one medium-sized populations that are isolated from one another. The availability of habitat in each of these units provides opportunity for population growth and expansion, with appropriate stepping-stone habitat conditions available for facilitating movement within units.

Each of these units has features that are essential to the conservation of the species because there is surrounding prairie habitat available for metapopulation expansion, and the units collectively support three of the largest remaining Fender's blue butterfly populations in this portion of the species' range. Additionally, these populations are located in relatively close proximity to one another, thus increasing the potential for interaction between populations. Stepping-stone habitat between FBB–7, FBB–8, and FBB–9 will likely be necessary for these currently isolated populations to function as a larger metapopulation. The habitat included within each of these units provides the foundation for long-term persistence of each respective isolated population.

Unit 7 for Fender's blue butterfly (Unit FBB–7)

Unit FBB–7 consists of approximately 11.5 ac (4.6 ha) of private and State lands within Benton County. The habitat in this unit, uniquely located in a meadow surrounded by forested land, supports the second largest known Fender's blue butterfly population and occurs in McDonald Forest located off Oak Creek Road. Approximately 15 percent of the habitat supporting the PCEs within FBB–7 occurs on Oregon State University lands and the remaining 85 percent occurs on private lands. This Fender's blue butterfly population has been monitored

annually since 1993 (Hammond 2004, pp. 26–27) and recent studies indicate that this population has the highest chance of long-term persistence based on population trend data (Schultz *et al.* 2003, pp. 67–68).

This population of Fender's blue butterfly is threatened by the encroachment of invasive grasses and succession to forest, especially in narrow areas of the meadow where tree encroachment could block-off portions of the habitat and isolate portions of the populations (Hammond 2004, p. 27). Although a management plan has not been completed for this unit, the landowner is interested in maintaining the prairie habitat for the butterfly. In cooperation with Oregon State University scientists, the landowner is studying appropriate management techniques for controlling invasive *Brachypodium sylvaticum* (false brome). Unit FBB–7 provides a diverse composition of high quality habitat utilized by all life stages of the Fender's blue butterfly.

Unit 8 for Fender's blue butterfly (Unit FBB–8)

Unit FBB–8 encompasses approximately 716.7 ac (290 ha) of private lands within Benton County. This unit is located in Wren, Oregon, between Kings Valley Highway, Cardwell Hill Road and Blakesly Creek Road, approximately 2 miles (3.2 km) southwest of Unit FBB–7. Several of the Fender's blue butterfly populations occupying this unit have been surveyed regularly since 1991 (Hammond and Wilson 1993, p 10, 22; Hammond 1997, p. 6; Hammond 1999, p. 20; Hammond 2001, p. 22; Hammond 2003, pp. 22, 23; Hammond 2004, pp. 23–25; Hammond 2005, p. 26).

A new Fender's blue butterfly population has been documented using a large population of *Lupinus sulphureus* ssp. *kincaidii* located between two of the regularly monitored populations of Fender's blue butterfly (Hammond 2004, p. 23). The powerline right-of-way that runs across Unit FBB–8 appears to play a significant role in Fender's blue butterfly dispersal between the *L. sulphureus* ssp. *kincaidii* populations scattered across this large contiguous high quality prairie (USFWS 2004a, 2004c). The relatively ''pristine'' (Hammond 2004, p. 23), large prairie habitat included within Unit FBB–8 contains the features essential for all life stages of this Fender's blue butterfly metapopulation.

Unit 9 for Fender's blue butterfly (Unit FBB–9)

Unit FBB–9 consists of approximately 48.5 ac (19.6 ha) of private lands located north of Philomath. The habitat occurs primarily to the south of West Hills Road and to the west of 19th Street. The Greenbelt Land Trust recently obtained a conservation easement for 51 percent of the prairie habitat supporting this population. Adult Fender's blue butterfly individuals have been observed using the nectaring habitat in this remnant prairie and many of the *Lupinus sulphureus* ssp. *kincaidii* populations scattered throughout the unit. The Fender's blue butterfly population utilizing the eastern portion of this site has been monitored annually since 1999 (Hammond 2005, p. 34), with the first observation of individuals occurring in 1992 (Hammond and Wilson 1993, pp. 10, 21). Threats to this site include encroachment of invasive species, trees and shrubs, and a small portion of the Unit FBB–9 is located along West Hills Road and impacted by roadside maintenance activities. Unit FBB–9 provides the habitat features essential for all life stages of this butterfly population, and is one of the core populations..

Units 10, 11, and 12 for Fender's blue butterfly (Unit FBB–10, FBB–11, and FBB–12)

Units FBB–10, FBB–11, and FBB–12 support the core populations of the species in the southern portion of their range. Collectively, these units provide the foundation for the West Eugene habitat network.

This area supports three core populations that are mostly isolated from one another (greater than 0.93 miles (1.5 km) from the nearest occupied lupine patch) with stepping-stone populations located between core populations. The availability of habitat within each of these units provides opportunity for population growth and expansion, as well as areas appropriate for stepping-stone habitat that will facilitate ease of movement within units. Each of these units provide habitat with features essential to the conservation of the species; they collectively support two of the largest remaining Fender's blue butterfly metapopulations (FBB–10 and FBB–12); the two metapopulations are located in relatively close proximity to one another providing a unique opportunity to reestablish a larger connected set of populations that functions as a viable metapopulation; the butterfly populations are all supported by *Lupinus sulphureus* ssp. *kincaidii*; and there is surrounding prairie habitat available for population expansion. Stepping-stone habitat in FBB–11 is necessary to provide connectivity among core butterfly populations to ensure the long-term persistence of this metapopulation.

Unit 10 for Fender's blue butterfly (Units FBB–10A, 10B, 10C, 10D, and 10E)

Unit FBB–10A–E encompass approximately 487.4 ac (197.2 ha) of prairie habitat in Lane County, Oregon. The prairie habitat included within FBB–10A–E occurs on BLM and Corps land (63 percent), private lands (33 percent), and County lands (4 percent). Unit FBB–10A, 10B, and 10C collectively support two core metapopulations of Fender's blue butterfly and *Lupinus sulphureus* ssp. *kincaidii* that have been surveyed annually since 1993 (Severns 2004, p. 2; Fitzpatrick 2005, p. 2). Within FBB–10A, 84 percent of the area occurs on Corps property located near Shore Lane, NE Fern Ridge Reservoir.

The populations occupying FBB–10A require tall-oat grass (*Arrhenatherum elatius*) management because this invasive grass now covers 100 percent of the habitat supporting all six populations (Severns 2004, p. 1). Nevertheless, the 2004 population surveys reported the largest number of butterflies ever observed at the site; the population size more than doubled between 2003 and 2004. The Army Corp of Engineers has reestablished populations of *Lupinus sulphureus* ssp. *kincaidii* between Fender's blue butterfly populations located within this unit to provide butterfly stepping-stone habitat and increase connectivity. In 2001, a small patch of *L. sulphureus* ssp. *kincaidii* was planted on the side of a spoil mound, on the south side of the Amazon Canal. The Fender's blue butterfly was documented using this lupine patch during the 2004 field season. This demonstrates that the recommended stepping-stone reserve design (Schultz 1998, p. 291) will allow for successful dispersal between core populations occurring on Corps lands in FBB–10A and on BLM lands in FBB–10C (Severns 2004, p. 1). The stepping-stone habitat is important to establishing a viable, connected Fender's blue butterfly metapopulation (McIntire *et al.* in review, pp. 1–47; Severns 2004, p. 1).

Portions of the habitat occurring on BLM land within FBB–10C are severely threatened by the closed canopy cover of *Rubus armeniacus* that has overtaken large areas of the site (Kaye 2004). Fender's blue butterfly populations

supported by the habitat within FBB–10B would benefit from adult nectar source augmentations (Severns 2004, p. 1). Habitat management will be necessary to increase the size and connectivity of butterfly populations by restoring additional stepping-stone habitat patches that enhance the connection between the core populations occupying FBB–10A and FBB–10C (McIntire *et al.* in review, pp. 1–47). Units FBB–10D and 10E provide essential features for the conservation of the species and stepping-stone habitat to populations occurring in Units FBB–11 and FBB–12 (McIntire *et al.* in review, pp. 1–47). Unit FBB–10A–E provides the habitat containing the features essential for two butterfly populations. This unit includes one of the most extensive contiguous prairie remnants, which increases the potential for connectivity between these two core populations. This prairie remnant provides the foundation for reestablishing a large functioning metapopulation within the West Eugene Habitat Network.

Unit 11 for Fender's blue butterfly (Units FBB–11A, 11B, 11C, 11D, 11E, 11F, 11G, 11H, and 11I)

Unit FBB–11A consists of 15.5 ac (6.3 ha) of privately owned land. FBB–11B includes approximately 14 ac (5.7 ha) of primarily BLM land (94 percent) with 6 percent occurring on private lands. FBB–11C encompasses approximately 22 ac (9 ha) with 94 percent occurring on BLM land and 6 percent on private lands. FBB–11D encompasses approximately 29.3 ac (11.9 ha) with 68 percent on federally owned lands and 32 percent on private lands. FBB–11E consists of approximately 4.4 ac (1.8 ha) of land entirely owned by Lane County. FBB–11F encompasses approximately 28.8 ac (11.6 ha) with 80 percent on federally owned lands, 9 percent on state owned lands and 11 percent on private lands. FBB–11G encompasses approximately 4.6 ac (1.9 ha) with 67 percent on Federal lands and 33 percent on private lands. FBB–11H consists of approximately 58.6 ac (23.7 ha) with 97 percent on Federal lands, less than 2 percent on private lands, and less than 1 percent on county lands. FBB–11I encompasses approximately 51.5 ac (20.8 ha) with 75 percent occurring on Federal lands and 25 percent on private lands. Most of the lupine populations scattered across the prairie habitat within this unit are relatively small, but the habitat supporting them is important to the long-term viability of a larger functioning Fender's blue butterfly metapopulation in this southern portion of the species range (McIntire *et al.* in review, pp. 1–47).

The area included within this unit provides needed stepping-stone habitat between the BLM/Army Corp of Engineers metapopulation to the northwest and The Nature Conservancy (TNC) metapopulations to the southeast (McIntire *et al.* in review, pp. 1–47). Local land managers recently surveyed this area to identify habitat patches suitable for reestablishing *Lupinus sulphureus* ssp. *kincaidii* populations as stepping-stones for the Fender's blue butterfly (McIntire *et al.* in review, pp. 1–47). The areas identified occur within this unit boundary will need to be enhanced to increase the size and connectivity of butterfly populations by restoring patches between core metapopulations within FBB–10 and FBB–12 (McIntire *et al.* in review, pp. 1–47). Unit FBB–11 (FBB–11A, 11B, 11C, 11D, 11E, 11F, 11G, 11H, and 11I) provides the features essential for all life stages of this butterfly population because it includes habitat to reestablish connectivity between two of the largest remaining metapopulations, and it increases viability of all populations in this portion of the species' range. The habitat included within FBB–11 is important for reestablishing connectivity between existing metapopulations and providing for a large functioning metapopulation (McIntire *et al.* in review, pp. 1–47).

Unit 12 for Fender's blue butterfly (Units FBB–12A and 12B)

Units FBB–12A and 12B encompasses approximately 114.4 ac (46.3 ha) near the intersection of Bailey Hill Road and Bertelson Road, with the majority of this land occurring on TNC property. The *Lupinus sulphureus* ssp. *kincaidii* and Fender's blue butterfly populations are scattered across the 508 ac (206 ha) of remnant prairie known as the Willow Creek Natural Area (Fitzpatrick 2005, pp. 2, 27). FBB–12A and 12B function as a metapopulation and collectively represent the third largest Fender's blue butterfly metapopulation across the range of the species. The populations occurring within this unit have been monitored annually since 1993 (Fitzpatrick 2005, p. 2).

The habitat within FBB–12A and 12B is threatened by exotic vegetation and succession to woody vegetation. To ensure a viable, connected metapopulation in west Eugene, the area within this unit should be enhanced to provide opportunity for population growth and expansion (McIntire *et al.* in review, pp. 1–47). Unit FBB–12 (FBB–12A and 12B) provides habitat features essential to the conservation of the species; it includes some of the highest quality remaining upland prairie, and supports the largest core metapopulation in this portion of the species range.

Unit 13 for Fender's blue butterfly (Unit FBB–13):

Unit FBB–13 encompasses approximately 132.5 ac (53.6 ha) of private land that supports several patches of primarily *Lupinus arbustus* scattered across the remnant prairie. The Fender's blue butterfly population occupying this unit has been monitored since 1993 (Fitzpatrick 2005, p. 7). This habitat supports one of the largest remaining butterfly populations and the highest diversity of native plants documented for Fender's blue butterfly habitat (Hammond 1994, p. 45). This butterfly population occurs on a valley hillside and is supported by habitat that appears to be stable climax grassland which is very different than the populations growing on the valley floor (Hammond and Wilson 1993, p. 45; Hammond 1994, p. 45). Hammond and Wilson (1993, p. 45) indicate this population should be regarded as a distinct ecological segregate that should be preserved as a unique population. The size, quality and its unique ecological conditions make this unit important to the conservation of the species.

Lupinus sulphureus ssp. *kincaidii*

In total, we are designating 13 critical habitat units, each of which represents areas of habitat containing the features essential to the conservation of core populations of *Lupinus sulphureus* ssp. *kincaidii* throughout its range. To simplify unit descriptions, we have grouped units that are within pollinator distance of one another, and that may function as larger, connected metapopulations with proper management and restoration.

Unit 1 of *Lupinus sulphureus* ssp. *kincaidii* (Unit KL–1)

Unit KL–1 consists of approximately 4 ac (1.6 ha) of private land in Lewis County, Washington. There are only a few small populations of *Lupinus sulphureus* ssp. *kincaidii* remaining in Washington. These populations are highly disjunct from the Willamette Valley populations with an estimated 81 miles (131 km) separation. Unit KL–1 includes the highest quality prairie habitat supporting *L. sulphureus* ssp. *kincaidii* in this northernmost extent of its range. This lupine patch is located approximately 0.8 km from lands supporting three lupine patches that are being managed to promote the

conservation of the species. The prairie habitat found in Lewis County, Washington, will likely need to be actively managed to expand the current *L. sulphureus* ssp. *kincaidii* populations and re-establish lupine patches in relative close proximity (3–5 miles (5–8 km)) to one another. At this time, we do not have enough information to identify additional potential habitat for population expansion, which will likely be necessary for these populations to function as a viable metapopulation. The habitat in this unit has the features essential to the conservation of *L. sulphureus* ssp. *kincaidii*; it supports one of the remaining *L. sulphureus* ssp. *kincaidii* populations in the northernmost extent of the species' range; is close enough to other lupine patches to function as a larger metapopulation; and there is surrounding prairie habitat available for population expansion.

Unit 2 of *Lupinus sulphureus* ssp. *kincaidii* (Unit KL–2 A and 2B)

Unit KL–2A and 2B encompass approximately 6.25 ac (2.5 ha) and 14.1 ac (5.7 ha) respectively, of private land in northern Yamhill County. KL–2A supports *Lupinus sulphureus* ssp. *kincaidii* patches along both the east and west sides of Oak Creek Road. KL–2B is located approximately 0.68 miles (1.1 km) south of KL–2A along both the east and west sides of Oak Creek Road, near the junction with Fairdale Road. Yamhill County is responsible for roadside maintenance activities along Oak Creek Road that may adversely impact these plant populations. The prairie habitat within KL–2 (KL–2A and 2B) includes the PCEs essential to the conservation of this core population. Habitat management will be necessary to maintain the short-grass stature of the native prairie and provide the habitat conditions essential to the conservation of *L. sulphureus* ssp. *kincaidii*. The Fender's blue butterfly uses *L. sulphureus* ssp. *kincaidii* at this site as a primary host plant and 100 percent of Unit KL–1 is included within Unit FBB–1.

Threats to Unit KL–2 include impacts from the timing and extent of road maintenance activities, domestic livestock management that reduces *Lupinus sulphureus* ssp. *Kincaidii* viability and distribution, and the presence of invasive species (Hammond 2004, p. 5, 33). The distribution of habitat patches in relatively close proximity to each other has likely contributed to the persistence of this population. Impacts to this population over the years have typically affected only one habitat patch at any given time since they are scattered across the prairie habitat. Severns (2003a, p. 227) indicates that the stepping-stone reserve design recommended for the conservation of Fender's blue butterfly will also benefit *L. sulphureus* ssp. *kincaidii* populations. Increasing the number of lupine patches in close proximity to one another will likely increase the chances for outcrossing pollination.

In order for the species to persist over the long term, this population will likely need to function with other populations to form a more viable metapopulation. At this time we do not have enough information to identify additional potential habitat for population expansion that will be necessary for this metapopulation to meet delisting criteria. Although there are other reported occurrences in the general vicinity those sites do not meet the minimum patch size, are highly degraded, or are restricted by roads without potential for population expansion, and thus are not considered to have the features essential to the conservation of this population. Unit KL–2 provides the habitat features essential for the continued persistence of a core population in this portion of the species range. Even with a relatively small population size, habitat within Unit KL–2 supports one of the largest remaining *Lupinus sulphureus* ssp. *kincaidii* populations that represents the northernmost Willamette Valley population, and provides surrounding prairie habitat for population expansion.

Units 3 and 4 of *Lupinus sulphureus* ssp. *kincaidii* (Unit KL–3 and KL–4)

Units KL–3 and KL–4 each support a *Lupinus sulphureus* ssp. *kincaidii* population that collectively, may function as a larger metapopulation. These units are located approximately 2.3 miles (3.7 km) apart and likely have rare cross-pollination events. Active management may be necessary to both enhance these populations and identify opportunities to increase pollinator connectivity among units. At this time we do not have enough information to identify additional potential habitat for population expansion, which will likely be necessary for these populations to function as a larger metapopulation. Although there are other small, mostly roadside populations recorded within the estimated 5 miles (8 km) pollinator distance, most are highly degraded, presumed extinct, or too small to meet our selection criteria, and are not proposed for critical habitat. Each of these units provide habitat that have the features essential to the conservation of the species; they each support the largest remaining populations in this portion of their range; are located in relatively close proximity to one another; have increasing potential for cross pollination and increased reproductive success; and there is surrounding prairie habitat available for population expansion.

Unit 3 of *Lupinus sulphureus* ssp. *kincaidii* (Unit KL–3)

Unit KL–3 consists of approximately 51 ac (20.6 ha) of private lands within Yamhill County. The *Lupinus sulphureus* ssp. *kincaidii* population is comprised of several populations scattered along the east and west sides of Gopher Valley Road near its intersection with Dupee Road. Yamhill County is responsible for roadside maintenance activities along Gopher Valley Road, which may adversely impact this population of *L. sulphureus* ssp. *kincaidii*. The largest distance separating lupine populations is approximately 0.12 mi (0.2 km). This population is threatened by the presence of invasive species; the relatively small, isolated nature of the population; and impacts associated with roadside maintenance activities. The Fender's blue butterfly uses *L. sulphureus* ssp. *kincaidii* at this site as a primary host plant, and 100 percent of Unit KL–3 is included in Unit FBB–2.

The prairie habitat within KL–3 should be managed to allow for growth and expansion of this relatively small population. Increasing the number of *Lupinus sulphureus* ssp. *kincaidii* patches in close proximity to one another will increase the chances for outcrossing pollination, which is essential to the conservation of this species. Because of the limited availability of supporting prairie habitat, this population will need to function with other populations as a larger, more viable metapopulation in order to persist over the long term. This prairie habitat should be actively managed in order to maintain the short-grass prairie stature essential for the conservation of *L. sulphureus* ssp. *kincaidii* and provide opportunity for population growth and expansion. One peer reviewer provided us with additional information that there is prairie habitat supporting a ''large area of *L. sulphureus* ssp. *kincaidii*'' within Deer Creek Park, which is owned by Yamhill County. Additionally, the peer reviewer noted that the lupine patch has been growing and expanding rapidly over the last few years. Although not included within the critical habitat designation (*see* comment/response #1), this population of *L. sulphureus* ssp. *kincaidii* substantially contributes to the metapopulation in this portion of the

species range and increases the overall viability of this metapopulation.

Unit 4 of *Lupinus sulphureus* ssp. *kincaidii* (Unit KL–4A and 4B)

Unit KL–4A and 4B consists of approximately 68.6 ac (27.8 ha) of private lands in Yamhill County and is located west of Muddy Valley Road and south of Eagle Point Road. The *Lupinus sulphureus* ssp. *kincaidii* populations are relatively small and scattered across this large, contiguous prairie remnant. The *L. sulphureus* ssp. *kincaidii* population within this unit boundary is one of only a few populations supported by extensive areas of the short-grass prairie necessary for population growth and expansion. Unit KL–4 (KL–4A and 4B) provides habitat with features essential for the continued persistence of this core population, and, together with the habitat included in Unit KL–3, these areas are fundamental to the continued persistence of a viable metapopulation in this portion of the species' range.

Units 5 and 6 of *Lupinus sulphureus* ssp. *kincaidii* (Unit KL–5 and KL–6)

Units KL–5 and KL–6 are both primarily State-owned lands managed by the ODOT. Each unit supports populations of *Lupinus sulphureus* ssp. *kincaidii* in this portion of the species' range that collectively function as a larger metapopulation. These units are both relatively small, but are two of the largest remaining populations in this portion of the species' range. In addition, they are located approximately 5 mi (8 km) from one another, within the estimated pollinator distance, and therefore may be functioning as a larger, more viable metapopulation. Since these populations are just within the pollinator maximum dispersal distance, cross pollination between habitat patches is likely a rare event. Active management will likely be necessary to both enhance these populations and identify opportunities to increase pollinator connectivity between units. At this time, we do not have enough information to identify additional potential habitat for population expansion, which will likely be necessary for these populations to regularly function as a larger metapopulation. Although there are other small, mostly roadside populations recorded within the estimated 5 mi (8 km) pollinator distance, most are highly degraded, presumed extirpated, or too small to meet our selection criteria and not expected to contribute towards the long-term persistence of this species. KL–5 and KL–6 provide habitat with the features essential to the conservation of the species; they support the largest remaining populations in this portion of their range; are located in relatively close proximity to one another, increasing potential for cross pollination and increased reproductive success; and have surrounding prairie habitat available for population expansion.

Unit 5 of *Lupinus sulphureus* ssp. *kincaidii* (Unit KL–5)

Unit KL–5 encompasses approximately 1.7 ac (0.7 ha) of ODOT land in southern Yamhill County and is located south of State Highway 18, east of Ballston Road, and approximately 0.6 mi (1 km) south of the Yamhill River. Although the overall prairie remnant supporting the population is small, the population of *Lupinus sulphureus* ssp. *kincaidii* it supports a substantial lupine popultion, with over a 1,000 individuals reported to occupy the unit (Gisler *in litt.,* p.1). Special management should focus on establishing or managing prairie habitat between KL–5 and KL–6 to allow for growth and expansion of the overall metapopulation. Severns (2003a, p. 227) indicates that the stepping-stone reserve design recommended for the conservation of the Fender's blue butterfly will also benefit *L. sulphureus* ssp. *kincaidii* populations. Increasing the number of lupine patches in close proximity to one another will likely increase the chances for outcrossing pollination, which will increase long-term viability of the metapopulation. Unit KL–5 provides the habitat containing the features essential for the continued persistence of this core population and, together with the habitat included in Unit KL–6, is fundamental to the continued persistence of a functioning metapopulation in this portion of the species' range.

Unit 6 of *Lupinus sulphureus* ssp. *kincaidii* (Unit KL–6)

Unit KL–6 encompasses approximately 3.6 ac (1.5 ha) of primarily ODOT land in northern Polk County. The *Lupinus sulphureus* ssp. *kincaidii* population occurs in two patches scattered along the northeast and southwest sides of Highway 22, near the intersection with Mill Creek Road. The Fender's blue butterfly uses *L. sulphureus* ssp. *kincaidii* at this site as a primary host plant, and 100 percent of Unit KL–6 is included in Unit FBB–3. Additionally, a small population of *Erigeron decumbens* var. *decumbens* occurs at this site. Hammond (2004, p. 10) documented that invasive grasses and shrubs have suppressed the *L. sulphureus* ssp. *kincaidii* and *E. decumbens* var. *decumbens* populations occupying this prairie remnant.

Although Unit KL–6 has limited available prairie habitat directly adjacent to the area currently supporting the species, mowing activities implemented by ODOT in 2000 resulted in an increase of *Lupinus sulphureus* ssp. *kincaidii* and Fender's blue butterfly. This demonstrates that appropriate management of this site provides an opportunity for population growth and expansion. Unit KL–6 provides habitat containing the features essential for the continued persistence of the core population, strengthens this core reserve area together with Unit KL–5, and is fundamental to the continued persistence of a functioning metapopulation in this portion of the species' range. It is likely that other populations occur in the near vicinity because the surrounding area is fairly undeveloped and much of this land has never been surveyed for *L. sulphureus* ssp. *kincaidii.*

Unit 7 of *Lupinus sulphureus* ssp. *kincaidii* (Unit KL–7)

Unit KL–7 consists of approximately 12.3 ac (5 ha) of private lands in central Polk County. This unit is located near the junction of Highway 223 and Oakdale Avenue, and largely falls within the City of Dallas urban-growth boundary. The Fender's blue butterfly uses *Lupinus sulphureus* ssp. *kincaidii* at this site as a primary host plant, and 100 percent of Unit KL–7 is included in Unit FBB–5. This butterfly population was monitored consistently between 1993 and 1997, but not again until May 2004. During the May 2004 field season, we met with the private landowner who owns one of the land parcels currently supporting the population of *L. sulphureus* ssp. *kincaidii* occurring within this unit boundary. We were able to document the extent of the area supporting the PCEs across the landscape and determined that a significant portion of the area historically supporting *L. sulphureus* ssp. *kincaidii* and Fender's blue butterfly populations has been developed into residential lots. Hammond (2004, p. 12) documented the removal of several acres of habitat over the last 10 years that had historically supported this population and these areas are not included within the critical habitat unit. This population is threatened by the presence of invasive species and the impacts associated with the encroachment of urban development. However, ongoing habitat management activities should reduce the threats of invasive species and provide opportunity for population

growth and expansion. The landowner we met with in 2004 has entered into a Partners for Fish and Wildlife Agreement (USFWS 2004c) and, in cooperation with Refuge staff, has agreed to manage the portion of the Fender's blue butterfly and *L. sulphureus* ssp. *kincaidii* habitat occurring on his property.

The area identified within the boundaries of KL–7 includes the features essential to the conservation of this core population in this portion of the species' range. Because of the limited availability of supporting prairie habitat, this population will likely need to function with other populations as a larger, viable metapopulation in order for the species to persist over the long term. At this time, we do not have enough information to specifically identify which surrounding areas supporting the PCEs will likely be necessary for the long-term viability of this larger metapopulation. The open areas to the south support roadside prairie remnants historically occupied by *Lupinus sulphureus* ssp. *kincaidii* populations that have been extirpated over the last 10 years (Hammond 2004, p. 12, 13).

Units 8, 9, and 10 of *Lupinus sulphureus* ssp. *kincaidii* (Units KL–8, KL–9, and KL–10)

Units 8, 9, and 10 each support a *Lupinus sulphureus* ssp. *kincaidii* population that collectively, may function as a larger metapopulation. These units are located approximately 3.7 mi (6 km) apart and may, at least occasionally, be cross-pollinated by insects. Active management will likely be necessary to both enhance these populations and identify opportunities to increase pollinator connectivity between units. Each of these units contain habitat that have the features essential to the conservation of the species; they each support a relatively large population; they are located in relatively close proximity to one another, thus increasing potential for cross-pollination and increased reproductive success; and there is surrounding prairie habitat available for population expansion. At this time, we do not have enough information to identify additional potential habitat for population expansion, which may be necessary for these populations to regularly function as a larger metapopulation. Although there are other small, mostly roadside populations recorded within the estimated 5 mi (8 km) pollinator distance, most are highly degraded, presumed extirpated, or too small to meet our selection criteria and not expected to contribute towards the long-term persistence; they are therefore not designated as critical habitat.

Unit 8 of *Lupinus sulphureus* ssp. *kincaidii* (Unit KL–8)

Unit KL–8 consists of approximately 11.5 ac (4.6 ha) of private and State lands in Benton County. This unit occurs in McDonald Forest located off Oak Creek Road and supports one of the highest quality remaining prairies. The *Lupinus sulphureus* ssp. *kincaidii* occupying this unit is the primary host plant of the Fender's blue butterfly; this site is the second largest known Fender's blue butterfly population, and 100 percent of Unit KL–8 is included in Unit FBB–7. Approximately 14 percent of the lands supporting the PCEs within this unit occurs on Oregon State University lands, and the remaining 86 percent occurs on private lands. The patches of *L. sulphureus* ssp. *kincaidii* occupying Unit KL–8 are scattered across a large contiguous prairie habitat, which is one of few occupied remnants occurring on valley hillsides. Unit KL–8 provides high quality upland prairie habitat, including the short-grass stature necessary to maintain the openness of the habitat. However, this population is threatened by the encroachment of invasive grasses, particularly *Brachypodium sylvaticum,* and succession to forest. In narrow areas of the meadow, forest succession is particularly problematic because the tree encroachment could block-off portions of the habitat and reduce connectivity between lupine patches, thus decreasing the potential for successful outcrossing pollination. Although a management plan for this area has not been completed, the unit has been managed for several years to enhance populations of both the Fender's blue butterfly and *L. sulphureus* ssp. *kincaidii.*

Special management of these lands is needed . Unit KL–8 provides habitat that has the features essential to the conservation of this species; it has one of the largest remaining contiguous prairie patches supporting a large population of *Lupinus sulphureus* ssp. *kincaidii*; there is surrounding prairie habitat available for population expansion; and this subpopulation increases the long-term viability of neighboring populations by contributing individuals to the overall metapopulation.

Unit 9 of *Lupinus sulphureus* ssp. *kincaidii* (Unit KL–9)

Unit KL–9 encompasses approximately 171.6 ac (69.4 ha) of private lands within Benton County. This unit is located in Wren, Oregon, between Kings Valley Highway, Cardwell Hill Road, and Blakesly Creek Road, approximately 2 mi (3.2 km) southwest of Unit KL–8. The Fender's blue butterfly uses the *Lupinus sulphureus* ssp. *kincaidii* scattered across this unit as a primary host plant, and 100 percent of Unit KL–9 is included within Unit FBB–8. The estimated average distance between lupine patches in Unit KL–9 is 0.6 mi (1 km), providing excellent habitat conditions for outcrossing pollination between lupine individuals.

This historic population was first documented in 1937 (Hammond 2004, p. 23), and new information has recently been identified about the distribution of the larger *Lupinus sulphureus* ssp. *kincaidii* metapopulation supported across this prairie remnant (Hammond 2004, p. 23). A new patch of *L. sulphureus* ssp. *kincaidii*, also occupied by the Fender's blue butterfly, has been documented within this prairie remnant and is located between the two populations that have been monitored annually (Hammond 2004, p. 23). The relatively ''pristine'' (Hammond 2004, p. 23), large, prairie habitat included within this unit provides the short-grass prairie stature required for expansion of the *L. sulphureus* ssp. *kincaidii* population. The habitat identified in Unit KL–9 has the features essential to the conservation of this species; it is one of the largest remaining contiguous prairie patches supporting a large population of *L. sulphureus* ssp. *kincaidii*; it provides opportunity for population expansion; and this subpopulation increases the long-term viability of neighboring populations by contributing individuals to the overall metapopulation.

Unit 10 of *Lupinus sulphureus* ssp. *kincaidii* (Unit KL–10)

Unit KL–10 consists of approximately 17.9 ac (7.2 ha) of private lands within Benton County and is located north of Philomath, with the habitat occurring primarily to the south of West Hills Road and to the west of 19th Street. This unit provides the features essential to the *Lupinus sulphureus* ssp. *kincaidii* population that serves as the primary host plant for a large population of Fender's blue butterfly. All of the area within Unit KL–10 is included in Unit FBB–9. The Greenbelt Land Trust recently obtained a conservation easement for the habitat and began managing prairie to enhance the areas supporting the features essential to the conservation of both the *L. sulphureus* ssp. *kincaidii* and Fender's blue butterfly populations.

Threats to this site include encroachment of invasive species, trees, and shrubs. A small portion of Unit KL–10 is located along West Hills Road and is impacted by roadside maintenance activities. The long-term viability of this unit will depend on continued active management that maintains the short-grass prairie habitat within this unit and provides opportunity to expand the existing population of *Lupinus sulphureus* ssp. *kincaidii*. The habitat identified in Unit KL–10 has the features essential to the conservation of this species; it is one of the highest quality remaining prairie patches supporting *L. sulphureus* ssp. *kincaidii*; there is surrounding prairie habitat available for population expansion; and this subpopulation increases the long-term viability of neighboring populations by contributing individuals to the overall metapopulation.

Units 11 and 12 of *Lupinus sulphureus* ssp. *kincaidii* (Units KL–11 and KL–12)

Units KL–11 (KL–11A, 11B, 11C, 11D, and 11E) and KL–12 (KL–12A, 12B, 12C, 12D, and 12E) collectively represent a series of upland habitat patches distributed across West Eugene interspersed with wet prairie habitat patches. This type of extensive network of wetland and upland prairie does not occur anywhere else in the Willamette Valley. Units KL–12A, 12B and 12C collectively provide a series of stepping-stone habitat patches between *Lupinus sulphureus* ssp. *kincaidii* populations supported by habitat within KL–12D and KL–12E and those populations occupying Unit KL–11. Increasing the number of lupine patches in close proximity to one another increases the chances for outcrossing pollination, which is required for successful reproduction. Both of these units contain habitat with the features essential to the conservation of the species; they each support the largest remaining *L. sulphureus* ssp. *kincaidii* populations in this portion of their range; they are located in relatively close proximity to one another, thus increasing potential for cross pollination and increased reproductive success; and there is substantial surrounding prairie habitat available for population expansion. Although there are other small, mostly roadside populations recorded within the estimated 5 mi (8 km) pollinator distance, most are highly degraded, presumed extinct, or too small to meet our selection criteria, and therefore are not designated as critical habitat.

Unit 11 of *Lupinus sulphureus* ssp. *kincaidis* (Unit KL–11A, 11B, 11C, 11D, and 11E)

Unit KL–11 encompasses approximately 64.6 ac (26.2 ha) of prairie habitat distributed across Federal and private lands in Lane County. This unit is located in West Eugene, near the Fern Ridge Reservoir, just south of Clearlake Road, and on both the east and west sides of Fir Butte Road. The area included in Units KL–11A, 11B, 11C, 11D, and 11E, collectively represent areas containing habitat with the features essential to the conservation of a currently functioning *Lupinus sulphureus* ssp. *kincaidii* metapopulation. The Fender's blue butterfly uses *L. sulphureus* ssp. *kincaidii* within this unit as a primary host plant and 100 percent of Unit KL–11 is included in Unit FBB–10.

The habitat within Unit KL–11 primarily occurs on Federal land managed by the BLM and Army Corp of Engineers, with 12 percent occurring on private land. The *Lupinus sulphureus* ssp. *kincaidii* populations occurring in KL–11A, 11B, 11C, and 11D are scattered across the area and form separate habitat patches that encircle the northeast edge of the Fern Ridge Reservoir. Although the Army Corp of Engineers actively manages most of the habitat supporting these populations, they all remain threatened by the presence of invasive grasses, predominantly *Arrhenatherum elatius* (tall oat grass), which limits the overall diversity of the site and the opportunity for population growth (Severns 2004, p. 1). *Lupinus sulphureus* ssp. *kincaidii* occupying KL–11E is sparsely distributed across the entire subunit, making it difficult to identify separate *L. sulphureus* ssp. *kincaidii* patches. This subunit is severely threatened by the presence of exotic species, primarily *Rubus armeniacus.* Although Unit KL–11 does not provide the highest quality habitat, it manages to support some of the largest remaining populations of *L. sulphureus* ssp. *kincaidii* in this portion of its range. The habitat included within Unit KL–11 contains the features essential for the continued persistence of this metapopulation.

Unit 12 of *Lupinus sulphureus* ssp. *kincaidii* (Units KL–12A, 12B, 12C, 12D, and 12E):

Unit KL–12 encompasses approximately 141.2 ac (57.1 ha) of prairie habitat distributed across Federal and private lands in Lane County. This unit is in west Eugene and located north of Bailey Hill Road and west of Bertelsen Road. This unit primarily occurs on lands owned by TNC and the BLM, with 4 percent occurring on private lands. The area included in KL–12A, 12B, 12C, 12D, and 12E, collectively represents habitat with the features essential to the conservation of a functioning *Lupinus sulphureus* ssp. *kincaidii* metapopulation. The Fender's blue butterfly uses the *L. sulphureus* ssp. *kincaidii* occupying this unit as a primary host plant, and 100 percent of Unit KL–12 is included in Units FBB–11 and FBB–12. KL–12D and 12E are owned by TNC and support the highest quality upland prairie remaining in this portion of the species' range. *Lupinus sulphureus* ssp. *kincaidii* is scattered across the prairie habitat in KL–12D and 12E and forms four distinct lupine patches that are separated by an estimated maximum distance of 0.3 mi (0.5 km). The habitat is actively managed for *L. sulphureus* ssp. *kincaidii,* and the long-term goal for TNC's lands is to eventually restore all available upland habitat and expand the population size. These units have the habitat containing the features essential to the conservation of this metapopulation; they provide the highest quality remaining habitat; support one of the largest remaining populations of *L. sulphureus* ssp. *kincaidii;* and provide habitat necessary for population growth.

Unit KL–12C supports a relatively small population of *Lupinus sulphureus* ssp. *kincaidii* occurring on private land, just north of West 11th Avenue. Unit KL–12B also supports a relatively small population of *L. sulphureus* ssp. *kincaidii* occurring on lands owned and managed by the BLM that are located east of Green Hill Road and north of West 11th Avenue. During the proposed critical habitat mapping for KL–12B, an area adjacent to KL–12B was overlooked. The BLM has identified this area adjacent to KL–12B as suitable for expanding the existing population. This adjacent area provides opportunity for contributing to the conservation of *L. sulphureus* ssp. *kincaidii* by expanding the relatively small population and increasing the stability of the overall metapopulation in this area. Unit KL–12A supports another relatively small population of *L. sulphureus* ssp. *kincaidii* occurring on land primarily owned and managed by the BLM and is located east of Green Hill Road and north of West 11th Avenue. Units KL–12A, 12B, and 12C, collectively provide a series of stepping-stone habitat patches between the *L. sulphureus* ssp. *kincaidii* populations owned and managed by TNC and those populations occupying Unit KL–11.

Unit 13 of *Lupinus sulphureus* ssp. *kincaidii* (Unit KL–13)

Unit KL–13 encompasses approximately 16.2 ac (6.6 ha) of private land in Lane County, and is located north of Powell Road and west of Coyote Creek. The prairie habitat included in this unit supports the southernmost population of *Lupinus sulphureus* ssp. *kincaidii* occurring in the Willamette Valley. The patches of *L. sulphureus* ssp. *kincaidii* are scattered across the available prairie habitat and include some of the densest stands of this plant observed (USFWS 2004a). Although there are no known occurrences of *L. sulphureus* ssp. *kincaidii* within pollinator distance of this population, it may be the healthiest population of this plant remaining. The habitat is threatened by the presence of invasive species such as *Cytisus scoparius* (Scotch broom), and the landowner manually removes the exotic species in order to maintain the conditions required for *L. sulphureus* ssp. *kincaidii* to persist. Unit KL–13 provides the habitat that has the features that are essential to the conservation of the species; it supports possibly the largest remaining *L. sulphureus* ssp. *kincaidii* population; it is surrounded by high quality prairie that provides opportunity for population growth and expansion; and it is the southernmost population remaining in the Willamette Valley.

Erigeron decumbens var. decumbens

In total, we are designating 9 critical habitat units, each of which represents the habitat containing the features essential to the conservation of core populations across the range of the species. To simplify unit descriptions, we have grouped units that are within pollinator distance of one another, and may function as larger, connected metapopulations with proper management and restoration.

There are very few extant populations of *Erigeron decumbens* var. *decumbens* documented outside of Eugene, Oregon. Due to limited distribution, Units WD–1 to WD–5 are important for the continued persistence of *E. decumbens* var. *decumbens* across its current range.

Unit 1 for Erigeron decumbens var. decumbens (Units WD–1A and 1B)

Units WD–1A and 1B encompass approximately 41.2 ac (16.7 ha) of Federal land occurring in northern Polk County. This unit is located adjacent to Highway 22, approximately 5.6 mi (9 km) northeast of the City of Dallas. There are two distinct populations (1A and 1B) located on the Baskett Slough National Wildlife Refuge, approximately 0.9 mi (1.5 km) apart. Unit 1B is located on Baskett Butte summit and coexists with one of the largest remaining Fender's blue butterfly populations. The prairie habitat supporting these *Erigeron decumbens* var. *decumbens* populations is currently being managed for the species. Units WD–1A and 1B contain habitat that has the features essential to the conservation of the species because they support the only remaining viable population of *E. decumbens* var. *decumbens* within Polk County, which represents the northernmost extent of the species' range. Although there are other reported occurrences in the general vicinity, these sites do not meet the minimum patch size for our selection criteria, are highly degraded, or are believed to be extirpated sites and, therefore, are not critical habitat.

Unit 2 for Erigeron decumbens var. decumbens (Unit WD–2)

Unit WD–2 encompasses approximately 12.2 ac (4.9 ha) of private land occurring in southern Marion County. This unit occurs south of SE Triumph Road and east of SE Boedigheimer Road, and supports the largest remaining *Erigeron decumbens* var. *decumbens* population in Marion County. Although this unit is privately owned, the Bonneville Power Administration holds an easement to maintain the powerline right-of-way that bisects the unit. This *E. decumbens* var. *decumbens* population is supported in a relatively large patch of high quality prairie that includes a diverse mix of prairie indicator species. Threats to the site include the presence of invasive species, population isolation including risk of inbreeding depression, and maintenance activities in the powerline right-of-way. Unit WD–2 contains habitat that has the features essential to the conservation of the species; it supports the only core population in Marion County; and it supports a large population in high quality habitat with the opportunity to increase population size and maintain a viable population. Although there are other reported occurrences in the general vicinity, those sites do not meet the minimum patch size as identified by our selection criteria, are highly degraded, or are believed to be extirpated sites and, therefore, are not critical habitat.

Unit 3 for Erigeron decumbens var. decumbens (Units WD–3A, 3B, and 3C)

Unit WD–3 encompasses approximately 58.3 ac (23.6 ha) of private land occurring within northern Linn County. This site is located north of SE Kingston Lyons Drive and on both the east and west sides of Huntly Road, and is primarily owned by TNC. This population of *Erigeron decumbens* var. *decumbens* occurs in a relatively large patch of high quality prairie that supports a diverse mix of prairie indicator species. The *E. decumbens* var. *decumbens* populations are distributed across the prairie remnant in three distinct habitat patches (WD–3A, 3B, and 3C). Threats to this site include the presence of invasive species, and population isolation including risk of inbreeding depression. TNC is managing the habitat supporting this population to allow for population expansion and reduce the distance between *E. decumbens* var. *decumbens* plant patches. Unit WD–3 contains the habitat that has the features essential to the conservation of the species; it supports the only remaining viable population within all of Linn County; supports a large population in high quality habitat with the opportunity to increase population size and establish a viable population; and represents the easternmost extent of the species' range. Although there are other reported occurrences in the general vicinity, those sites do not meet the minimum patch size for our selection criteria, are highly degraded, are roadside without potential for population expansion, or are believed to be extirpated sites and, therefore, are not critical habitat.

Unit 4 for Erigeron decumbens var. decumbens (Units WD–4A and 4B)

Unit WD–4 encompasses approximately 9.3 ac (3.8 ha) of private and City of Corvallis land occurring in Benton County. This unit is located north of SW Reservoir Avenue and south of NW Oak Creek Drive. Approximately half of the habitat within this unit is located on City of Corvallis land and half on private land. The habitat supporting this population of *Erigeron decumbens* var. *decumbens* occurs in two distinct habitat patches (WD–4A and 4B) approximately 0.6 mi (1 km) apart. A portion of the *E. decumbens* var. *decumbens* population occupying this unit occurs along a hiking trail located on private land with a City of Corvallis access easement. Threats to this unit include woody encroachment, trail maintenance, and the small size and isolated nature of the population. There are only two other reported occurrences in Benton County: one population in Unit WD–5 and a second population encompassing 300 square ft. (28 square m) within the boundary of the William Finley National Wildlife Refuge.

Although the *Erigeron decumbens* var. *decumbens* population occupying

this unit is relatively small, it is one of the largest remaining populations in this portion of the species' range and is supported by a large habitat patch with a moderate diversity of indicator species. Unit WD–4 contains habitat that has the features essential to the conservation of the species; it supports one of three remaining populations in Benton County; and has a moderate size population with enough available habitat to provide for population growth and expansion. Unit WD–4 supports a core population fundamental to the continued persistence of the species in this portion of its current range.

Unit 5 for Erigeron decumbens var. decumbens (Unit WD–5)

Unit WD–5 consists of approximately 38.5 ac (15.6 ha) of private land, south of Corvallis, in Benton County. This unit is located along Muddy Creek, just to the west of Cutler Lane. The Greenbelt Land Trust is currently working with the landowner to place a conservation easement on the property, and, in cooperation with the Service, they plan to restore and enhance native habitats within the unit. Unit WD–5 contains the habitat that has the features essential to the conservation of the species; it supports the largest population of *Erigeron decumbens* var. *decumbens* in Benton County; includes substantial habitat for population expansion; and supports the core population fundamental to the continued persistence of the species in this portion of its current range.

Units 6, 7, 8, and 9 for Erigeron decumbens var. decumbens (Units WD–6, WD–7, WD–8, and WD–9)

Units WD–6, WD–7, WD–8, and WD–9 occur in West Eugene, Oregon, and collectively represent the largest, most-connected, functional network of suitable prairie habitat for *Erigeron decumbens* var. *decumbens.* Units WD–6, WD–7, WD–8, and WD–9 contain the habitat that has the features essential to the conservation of this species; they each support stable populations and, collectively, these units support the only large metapopulation of *E. decumbens* var. *decumbens.*

Because units WD–6, WD–7, WD–8, and WD–9 support the only large metapopulation of *E. decumbens* var. *decumbens* across its current range, the habitat supporting these populations provide the highest probability for long-term persistence of the species. Any reduction of available habitat will create more edge effect, increase habitat fragmentation, reduce outcrossing pollination potential, and further reduce population viability. Units WD–6, WD–7, WD–8, and WD–9 are threatened to varying degrees by the encroachment of invasive species and active management will be necessary to ensure the long-term persistence of this large metapopulation. Additionally, habitat enhancement may be necessary to expand populations across this metapopulation and further increase connectivity. Although there are other reported occurrences of *Erigeron decumbens* var. *decumbens* in the general vicinity, those sites do not meet the minimum patch size for our selection criteria, or are highly degraded, and are therefore not critical habitat.

Unit 6 for Erigeron decumbens var. decumbens (Units WD–6A, 6B, 6C, and 6D)

Unit WD–6 encompasses approximately 85.4 ac (34.6 ha) of critical habitat, with an estimated 89 percent on Federal land and 11 percent occurring on private land. This unit is located in Eugene, along Ken Neilsen Road and West 11th Avenue. The federally owned land includes both BLM and Army Corp of Engineers lands. WD–6A supports one of the largest remaining populations of *Erigeron decumbens* var. *decumbens*, occurs on Army Corp of Engineers lands, and is located on the northwestern edge of this relatively large metapopulation.

Unit WD–6 contains habitat that has the features essential to the conservation of this species; it supports a stable population and has an important role in support of the only large metapopulation of *E. decumbens* var. *decumbens.*

Unit 7 for Erigeron decumbens var. decumbens (Units WD–7A and WD–7B)

Unit WD–7A consists of approximately 22.3 ac (9 ha) of critical habitat, primarily on Federal land, with 2 percent occurring on private land. WD–7A is located to the west of Green Hill Road and to the north of West 11th Avenue, and is managed by the Army Corp of Engineers. The habitat included within this unit boundary supports a moderately sized *Erigeron decumbens* var. *decumbens* population with habitat available for population expansion.

Subunit WD–7B encompasses approximately 143.4 ac (58 ha) of primarily Federal land with an estimated 22 percent occurring on private land and an estimated 4 percent occurring on State land. This subunit is located near the intersection of Green Hill Road and West 11th Avenue. *Erigeron decumbens* var. *decumbens* is patchily distributed across the subunit with enough supporting habitat to allow for population growth. The *E. decumbens* var. *decumbens* populations supported by WD–7A and 7B are less than 0.6 miles (1 km) from the nearest neighboring population, providing for pollinator connectivity between habitat patches and increasing the potential for successful reproduction.

Unit WD–7 contains habitat that has the features essential to the conservation of this species; it supports a stable population and has a role in support of the only large metapopulation of *Erigeron decumbens* var. *decumbens.*

Unit 8 for Erigeron decumbens var. decumbens (Units WD–8A, WD–8B, WD–8C, WD–8D, and WD–8E)

Subunits WD–8A and 8B consist of approximately 135.9 ac (55 ha) of Federal and private lands in West Eugene, Oregon. These subunits are located near the intersection of Willow Creek and West 18th Avenue. An estimated 45 percent of this area occurs on private land with approximately 55 percent occurring on BLM land. The western half of subunit WD–8A includes high quality remaining wet prairie; the eastern portion of the site includes much lower quality habitat. WD–8A is a relatively large remnant prairie and provides excellent opportunity for population growth and expansion. WD–8B is located approximately 0.3 mi (0.5 km) directly east of WD–8A. This habitat patch is located directly north of TNC's land, which is currently being managed for *Erigeron decumbens* var. *decumbens.* The location of these subunits, in close proximity to one another, increases the overall quality and viability of this metapopulation.

Subunit WD–8C encompasses approximately 2.5 ac (1 ha) of private land located east of Wallis Street within the City of Eugene. This site supports a relatively small population of *Erigeron decumbens* var. *decumbens* on good quality wet prairie habitat with a diverse species composition. The site is located within 1.5 mi (2.5 km) of WD–9B. Subunit WD–8C provides habitat for population growth and expansion. The *E. decumbens* var. *decumbens* plants occurring in this unit, Unit WD–6, and Unit WD–7 are all in close proximity to one another, thus increasing the potential for cross pollination between populations and reducing the risk of inbreeding depression. The primary threat to this habitat is that it is surrounded by development, reducing pollinator connectivity to the other populations. However, since this habitat is in close proximity to other populations, this *E. decumbens* var. *decumbens* site has a much higher

chance of cross pollination than most remaining isolated populations.

Subunits WD–8D and 8E consist of approximately 74.7 ac (30.3 ha) of prairie habitat that is owned by TNC. These subunits are located just south of West 18th Avenue along Willow Creek. These subunits include high quality prairie and support the second largest *Erigeron decumbens* var. *decumbens* population located in Eugene. These subunits provide sufficient habitat to support population growth and expansion, and are located less than 1.2 mi (2 km) from neighboring *E. decumbens* var. *decumbens* populations. This large, connected, high quality habitat provides one of the core areas contributing towards the long-term conservation of Unit WD–8.

Unit WD–8 contains habitat that has the features essential to the conservation of this species; it supports a stable population and has a role in support of the only large metapopulation of *Erigeron decumbens* var. *decumbens*.

Unit 9 for *Erigeron decumbens* var. *decumbens* (Unit WD–9A, WD–9B, WD–9C, WD–9D, and WD–9E)

Subunit WD–9A encompasses an estimated 90 ac (36.4 ha) of private land and is located approximately 1.2 mi (2 km) east of the intersection of Pine Grove Road and Crow Road. The *Erigeron decumbens* var. *decumbens* population occupying this unit is scattered in a few patches across this large prairie remnant. The habitat included within this unit includes high quality prairie with extensive habitat available to support population growth and expansion. This unit is located approximately 1.2 mi (2 km) north of the closest known *E. decumbens* var. *decumbens* population, increasing the long-term viability of both populations due to increased pollinator accessibility between plant patches.

Subunits WD–9B and 9C consist of approximately 1 ac (0.4 ha) of private land and are located east of Pine Grove Road and south of Crow Road. Although this is a relatively small site, it is located on a high quality prairie remnant that supports a diversity of native composition. The *Erigeron decumbens* var. *decumbens* populations occupying these subunits occur in patches scattered around a stand of oak and Pinus ponderosa (Ponderosa pine). These subunits are located between WD–9A, WD–9D, and WD–9E, and increase the potential for outcrossing pollination of all Unit WD–9 populations.

Subunits WD–9D and WD–9E encompass approximately 3 ac (1.2 ha) of private land and are located north of Spencer Creek Road and east of Pine Grove Road. These subunits include high quality wet prairie with a highly diverse species composition and support hundreds of *Erigeron decumbens* var. *decumbens* plants. This population occurs at the southernmost extent of the species' range, with Unit WD–9C located approximately 1.9 miles (3 km) to the north.

Unit WD–9 contains habitat that has the features essential to the conservation of this species; it supports a stable population and has a role in support of the only large metapopulation of *Erigeron decumbens* var. *decumbens*.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7 of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify critical habitat. In our regulations at 50 CFR 402.02, we define destruction or adverse modification as ''a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.'' However, recent decisions by the 5th and 9th Circuit Court of Appeals have invalidated this definition. Pursuant to current national policy and the statutory provisions of the Act, destruction or adverse modification is determined on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve the intended conservation role for the species.

Section 7(a) of the Act requires Federal agencies, including the Service, to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is proposed or designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402.

Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. This is a procedural requirement only. However, once a proposed species becomes listed, or proposed critical habitat is designated as final, the full prohibitions of section 7(a)(2) apply to any Federal action. The primary utility of the conference procedures is to maximize the opportunity for a Federal agency to adequately consider proposed species and critical habitat and avoid potential delays in implementing their proposed action as a result of the section 7(a)(2) compliance process, should those species be listed or the critical habitat designated.

Under conference procedures, the Service may provide advisory conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. The Service may conduct either informal or formal conferences. Informal conferences are typically used if the proposed action is not likely to have any adverse effects to the proposed species or proposed critical habitat. Formal conferences are typically used when the Federal agency or the Service believes the proposed action is likely to cause adverse effects to proposed species or critical habitat, inclusive of those that may cause jeopardy or adverse modification.

The results of an informal conference are typically transmitted in a conference report; while the results of a formal conference are typically transmitted in a conference opinion. Conference opinions on proposed critical habitat are typically prepared according to 50 CFR 402.14, as if the proposed critical habitat were designated. We may adopt the conference opinion as the biological opinion when the critical habitat is designated, if no substantial new information or changes in the action alter the content of the opinion (*see* 50 CFR 402.10(d)). As noted above, any conservation recommendations in a conference report or opinion are strictly advisory.

If a species is listed or critical habitat is designated, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. As a result of this consultation, compliance with the requirements of section 7(a)(2) will be documented through the Service's issuance of: (1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or (2) a biological opinion for Federal actions

that may affect, but are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to result in jeopardy to a listed species or the destruction or adverse modification of critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. ''Reasonable and prudent alternatives'' are defined at 50 CFR 402.02 as alternative actions identified during consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that the Director believes would avoid jeopardy to the listed species or destruction or adverse modification of critical habitat. Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where a new species is listed or critical habitat is subsequently designated that may be affected and the Federal agency has retained discretionary involvement or control over the action or such discretionary involvement or control is authorized by law. Consequently, some Federal agencies may request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions may affect subsequently listed species or designated critical habitat or adversely modify or destroy proposed critical habitat.

Federal activities that may affect the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens* or their designated critical habitat will require section 7 consultation under the Act. Activities on State, tribal, local or private lands requiring a Federal permit (such as a permit from the Corps under section 404 of the Clean Water Act or a permit under section 10(a)(1)(B) of the Act from the Service) or involving some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency) will also be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally-funded, authorized, or permitted, do not require section 7 consultations.

Application of the Jeopardy and Adverse Modification Standards for Actions Involving Effects to the Fender's blue butterfly, Lupinus sulphureus ssp. kincaidii, and Erigeron decumbens var. decumbens and Their Critical Habitat

Jeopardy Standard

Prior to and following designation of critical habitat, the Service has applied an analytical framework for Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens* jeopardy analyses that relies heavily on the importance of core area populations to the survival and recovery of the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens.* The section 7(a)(2) analysis is focused not only on these populations but also on the habitat conditions necessary to support them.

The jeopardy analysis usually expresses the survival and recovery needs of the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens* in a qualitative fashion without making distinctions between what is necessary for survival and what is necessary for recovery. Generally, if a proposed Federal action is incompatible with the viability of the affected core area population(s), inclusive of associated habitat conditions, a jeopardy finding is considered to be warranted, because of the relationship of each core area population to the survival and recovery of the species as a whole.

Adverse Modification Standard

The analytical framework described in the Director's December 9, 2004, memorandum is used to complete section 7(a)(2) analyses for Federal actions affecting Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens* critical habitat. The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve the intended conservation role for the species. Generally, the conservation role of Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens* critical habitat units is to support viable core area populations.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe in any proposed or final regulation that designates critical habitat those activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation. Activities that may destroy or adversely modify critical habitat may also jeopardize the continued existence of the species.

Activities that may destroy or adversely modify critical habitat are those that alter the PCEs to an extent that the conservation value of critical habitat for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens* is appreciably reduced. Activities that, when carried out, funded, or authorized by a Federal agency, may affect critical habitat and therefore result in consultation for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, or *Erigeron decumbens* var. *decumbens* include, but are not limited to:

(1) Actions that would further degrade, or destroy prairie habitat supporting populations of Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, or *Erigeron decumbens* var. *decumbens.* Such activities could include, but are not limited to, the removal or destruction of prairie habitat by grading, leveling, plowing, mowing, burning, operation of motorized equipment, herbicide spraying, or intensive grazing. These activities could eliminate or reduce the habitat necessary for Fender's blue butterfly by removing the host plant essential for reproduction and larval feeding, as well as adult nectaring plants. Additionally, removal or destruction of habitat further isolates populations and increases the risk of inbreeding depression. Implementation of these activities in prairie habitat supporting *L. sulphureus* ssp. *kincaidii* or *E. decumbens* var. *decumbens* could directly eliminate individuals and eliminate the potential for essential population growth and expansion in the available ''open spaces'' of native short-grass prairie habitat.

(2) Actions that further isolate or reduce genetic interchange among populations of Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, or *Erigeron decumbens* var. *decumbens* from other extant locations within a unit or between subunits. Such activities could include, but are not limited to, the construction or expansion of roads, houses, buildings, or infrastructure that limit dispersal of the Fender's blue butterfly between lupine patches, and limit the dispersal of plant pollinators

between *L. sulphureus* ssp. *kincaidii* and *E. decumbens* var. *decumbens* populations. These activities reduce the opportunity for population growth and decrease genetic diversity by limiting normal breeding behaviors.

We consider all of the units designated as critical habitat, as well as those that have been excluded, to contain features essential to the conservation of the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, or *Erigeron decumbens* var. *decumbens.* All critical habitat units are within the geographic ranges of these species, and all were occupied by these species at the time of listing. All units are likely to be used by Fender's blue butterfly, *L. sulphureus* ssp. *kincaidii*, or *E. decumbens* var. *decumbens* to carry out important life history functions. Federal agencies already consult with us on activities in areas currently occupied by Fender's blue butterfly, *L. sulphureus* ssp. *kincaidii*, or *E. decumbens* var. *decumbens*, or if the species may be affected by the action, to ensure that their actions do not jeopardize the continued existence of the species.

When analyzing whether the effects of those actions described above constitute adverse modification or destruction of critical habitat, the Service would determine whether the action precludes the ability of any given unit to provide the PCEs for which that unit was designated. In considering whether loss of the function of the PCEs contributes to adverse modification, we will consider the purpose for which any given unit was determined to be essential and designated as critical habitat.

Federal agencies already consult with us on activities in areas currently occupied by the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, or *Erigeron decumbens* var. *decumbens* or if the species may be affected by the action, to ensure that their actions do not jeopardize the continued existence of these species.

Exclusions Under Section 4(b)(2) of the Act

Section 3(5)(A) of the Act defines critical habitat as the specific areas within the geographic area occupied by the species on which are found those physical and biological features (i) essential to the conservation of the species, and (ii) which may require special management considerations or protection. Therefore, areas within the geographic area occupied by the species that do not contain the features essential to the conservation of the species are not, by definition, critical habitat. Similarly, areas within the geographic area occupied by the species that require no special management or protection also are not, by definition, critical habitat.

There are multiple ways to provide management for species habitat. Statutory and regulatory frameworks that exist at a local level can provide such protection and management, as can lack of pressure for change, such as areas too remote for anthropogenic disturbance. Finally, State, local, or private management plans as well as management under Federal agencies jurisdictions can provide protection and management to avoid the need for designation of critical habitat. When we consider a plan to determine its adequacy in protecting habitat, we consider whether the plan, as a whole will provide the same level of protection that designation of critical habitat would provide. The plan need not lead to exactly the same result as a designation in every individual application, as long as the protection it provides is equivalent, overall. In making this determination, we examine whether the plan provides management, protection, or enhancement of the PCEs that is at least equivalent to that provided by a critical habitat designation, and whether there is a reasonable expectation that the management, protection, or enhancement actions will continue into the foreseeable future. Each review is particular to the species and the plan, and some plans may be adequate for some species and inadequate for others.

Section 4(b)(2) of the Act states that critical habitat shall be designated, and revised, on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact, of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if [s]he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless [s]he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the Secretary is afforded broad discretion and the Congressional record is clear that in making a determination under the section the Secretary has discretion as to which factors and how much weight will be given to any factor.

Under section 4(b)(2), in considering whether to exclude a particular area from the designation, we must identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, determine whether the benefits of exclusion outweigh the benefits of inclusion. If an exclusion is contemplated, then we must determine whether excluding the area would result in the extinction of the species. In the following sections, we address a number of general issues that are relevant to the exclusions we considered.

Conservation Partnerships on Non-Federal Lands

Most federally listed species in the United States will not recover without the cooperation of non-Federal landowners. More than 60 percent of the United States is privately owned (National Wilderness Institute 1995) and at least 80 percent of endangered or threatened species occur either partially or solely on private lands (Crouse *et al.* 2002). Stein *et al.* (1995) found that only about 12 percent of listed species were found almost exclusively on Federal lands (*i.e.*, 90–100 percent of their known occurrences restricted to Federal lands) and that 50 percent of federally listed species are not known to occur on Federal lands at all.

Given the distribution of listed species with respect to land ownership, conservation of listed species in many parts of the United States is dependent upon working partnerships with a wide variety of entities and the voluntary cooperation of many non-federal landowners (Wilcove and Chen 1998; Crouse *et al.* 2002; James 2002). Building partnerships and promoting voluntary cooperation of landowners is essential to understanding the status of species on non-Federal lands and is necessary to implement recovery actions such as reintroducing listed species, habitat restoration, and habitat protection.

Many non-Federal landowners derive satisfaction in contributing to endangered species recovery. The Service promotes these private-sector efforts through the Four Cs philosophy—conservation through communication, consultation, and cooperation. This philosophy is evident in Service programs such as HCPs, Safe Harbors, CCAs, CCAAs, and conservation challenge cost-share. Many private landowners, however, are wary of the possible consequences of encouraging endangered species to their property, and there is mounting evidence that some regulatory actions by the Federal government, while well-intentioned and required by law, can under certain circumstances have unintended negative consequences for the conservation of species on private lands (Wilcove *et al.* 1996; Bean 2002;

Conner and Mathews 2002; James 2002; Koch 2002; Brook *et al.* 2003). Many landowners fear a decline in their property value due to real or perceived restrictions on land-use options where threatened or endangered species are found. Consequently, harboring endangered species is viewed by many landowners as a liability, resulting in anti-conservation incentives because maintaining habitats that harbor endangered species represents a risk to future economic opportunities (Main *et al.* 1999; Brook *et al.* 2003).

The purpose of designating critical habitat is to contribute to the conservation of threatened and endangered species and the ecosystems upon which they depend. The outcome of the designation, triggering regulatory requirements for actions funded, authorized, or carried out by Federal agencies under section 7 of the Act, can sometimes be counterproductive to its intended purpose on non-Federal lands. According to some researchers, the designation of critical habitat on private lands significantly reduces the likelihood that landowners will support and carry out conservation actions (Main *et al.* 1999; Bean 2002; Brook *et al.* 2003). The magnitude of this negative outcome is greatly amplified in situations where active management measures (*e.g.*, reintroduction, fire management, control of invasive species) are necessary for species conservation (Bean 2002).

The Service believes that the judicious use of excluding specific areas of non-federally owned lands from critical habitat designations can contribute to species recovery and provide a superior level of conservation than critical habitat alone. For example, less than 17 percent of Hawaii is federally owned, but the state is home to more than 24 percent of all federally listed species, most of which will not recover without State and private landowner cooperation. On the island of Lanai, Castle and Cooke Resorts, LLC, which owns 99 percent of the island, entered into a conservation agreement with the Service. The conservation agreement provides conservation benefits to target species through management actions that remove threats (*e.g.*, axis deer, mouflon sheep, rats, invasive nonnative plants) from the Lanaihale and East Lanai Regions. Specific management actions include fire control measures, nursery propagation of native flora (including the target species) and planting of such flora. These actions will significantly improve the habitat for all currently occurring species. Due to the low likelihood of a Federal nexus on the island we believe that the benefits of excluding the lands covered by the MOA exceeded the benefits of including them. As stated in the final critical habitat rule for endangered plants on the Island of Lanai:

> On Lanai, simply preventing ''harmful activities'' will not slow the extinction of listed plant species. Where consistent with the discretion provided by the Act, the Service believes it is necessary to implement policies that provide positive incentives to private landowners to voluntarily conserve natural resources and that remove or reduce disincentives to conservation. While the impact of providing these incentives may be modest in economic terms, they can be significant in terms of conservation benefits that can stem from the cooperation of the landowner. The continued participation of Castle and Cooke Resorts, LLC, in the existing Lanai Forest and Watershed Partnership and other voluntary conservation agreements will greatly enhance the Service's ability to further the recovery of these endangered plants.

The Department's Four Cs philosophy—conservation through communication, consultation, and cooperation—is the foundation for developing the tools of conservation. These tools include conservation grants, funding for Partners for Fish and Wildlife Program, the Coastal Program, and cooperative-conservation challenge cost-share grants. Our Private Stewardship Grant program and Landowner Incentive Program provide assistance to private land owners in their voluntary efforts to protect threatened, imperiled, and endangered species, including the development and implementation of HCPs.

Conservation agreements with non-Federal landowners (*e.g.*, Habitat Conservation Plans (HCPs), contractual conservation agreements, easements, and stakeholder-negotiated State regulations) enhance species conservation by extending species protections beyond those available through section 7 consultations. In the past decade we have encouraged non-Federal landowners to enter into conservation agreements, based on a view that we can achieve greater species conservation on non-Federal land through such partnerships than we can through coercive methods (61 FR 63854; December 2, 1996).

General Principles of Section 7 Consultations Used in the 4(b)(2) Balancing Process

The most direct, and potentially largest, regulatory benefit of critical habitat is that federally authorized, funded, or carried out activities require consultation pursuant to section 7 of the Act to ensure that they are not likely to destroy or adversely modify critical habitat. There are two limitations to this regulatory effect. First, it only applies where there is a Federal nexus—if there is no Federal nexus, designation itself does not restrict actions that destroy or adversely modify critical habitat. Second, it only limits destruction or adverse modification. By its nature, the prohibition on adverse modification is designed to ensure those areas that contain the physical and biological features essential to the conservation of the species or unoccupied areas that are essential to the conservation of the species are not eroded. Critical habitat designation alone, however, does not require specific steps toward recovery.

Once consultation under section 7 of the Act is triggered, the process may conclude informally when the Service concurs in writing that the proposed Federal action is not likely to adversely affect the listed species or its critical habitat. However, if the Service determines through informal consultation that adverse impacts are likely to occur, then formal consultation would be initiated. Formal consultation concludes with a biological opinion issued by the Service on whether the proposed Federal action is likely to jeopardize the continued existence of a listed species or result in destruction or adverse modification of critical habitat, with separate analyses being made under both the jeopardy and the adverse modification standards. For critical habitat, a biological opinion that concludes in a determination of no destruction or adverse modification may contain discretionary conservation recommendations to minimize adverse effects to primary constituent elements, but it would not contain any mandatory reasonable and prudent measures or terms and conditions. Mandatory reasonable and prudent alternatives to the proposed Federal action would only be issued when the biological opinion results in a jeopardy or adverse modification conclusion.

We also note that for 30 years prior to the Ninth Circuit Court's decision in *Gifford Pinchot Task Force* v. *U.S. Fish and Wildlife Service*, 378 F.3d 1059 (9th Cir. 2004) the Service equated the jeopardy standard with the standard for destruction or adverse modification of critical habitat. The Court ruled that the Service could no longer equate the two standards and that adverse modification evaluations require consideration of impacts on the recovery of species. Thus, under the *Gifford Pinchot* decision, critical habitat designations may provide greater benefits to the recovery of a species. However, we believe the conservation achieved

through implementing habitat conservation plans (HCPs) or other habitat management plans is typically greater than would be achieved through multiple site-by-site, project-by-project, section 7 consultations involving consideration of critical habitat. Management plans may commit resources to implement long-term management and protection to particular habitat for at least one and possibly other listed or sensitive species. Section 7 consultations only commit Federal agencies to prevent adverse modification to critical habitat caused by the particular project, and they are not committed to provide conservation or long-term benefits to areas not affected by the proposed project. Thus, any HCP or management plan which considers enhancement or recovery as the management standard will always provide as much or more benefit than a consultation for critical habitat designation conducted under the standards required by the Ninth Circuit in the *Gifford Pinchot* decision.

The information provided in this section applies to all the discussions below that discuss the benefits of inclusion and exclusion of critical habitat in that it provides the framework for the consultation process.

Educational Benefits of Critical Habitat

A benefit of including lands in critical habitat is that the designation of critical habitat serves to educate landowners, State and local governments, and the public regarding the potential conservation value of an area. This helps focus and promote conservation efforts by other parties by clearly delineating areas of high conservation value for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, or *Erigeron decumbens* var. *decumbens.* In general the educational benefit of a critical habitat designation always exists, although in some cases it may be redundant with other educational effects. For example, HCPs have significant public input and may largely duplicate the educational benefit of a critical habitat designation. This benefit is closely related to a second, more indirect benefit: that designation of critical habitat would inform State agencies and local governments about areas that could be conserved under State laws or local ordinances.

However, we believe that there would be little additional informational benefit gained from the designation of critical habitat for the exclusions we are making in this rule because these areas were included in the proposed rule as having habitat containing the features essential to the conservation of the species. Consequently, we believe that the informational benefits are already provided even though these areas are not designated as critical habitat. Additionally, the purpose normally served by the designation of informing State agencies and local governments about areas which would benefit from protection and enhancement of habitat for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, or *Erigeron decumbens* var. *decumbens* is already well established among State and local governments, and Federal agencies in those areas that we are excluding from critical habitat in this rule on the basis of other existing habitat management protections.

The information provided in this section applies to all the discussions below that discuss the benefits of inclusion and exclusion of critical habitat.

Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act

This section allows the Secretary to exclude areas from critical habitat for economic reasons if she determines that the benefits of such exclusion exceed the benefits of designating the area as critical habitat, unless the exclusion will result in the extinction of the species concerned. This is a discretionary authority Congress has provided to the Secretary with respect to critical habitat. Although economic and other impacts may not be considered when listing a species, Congress has expressly required their consideration when designating critical habitat.

In general, we have considered in making the following exclusions that all of the costs and other impacts predicted in the economic analysis may not be avoided by excluding the area, due to the fact that all of the areas in question are currently occupied by the listed species and there will be requirements for consultation under Section 7 of the Act, or for permits under section 10 (henceforth ''consultation''), for any take of these species, and other protections for the species exist elsewhere in the Act and under State and local laws and regulations. In conducting economic analyses, we are guided by the 10th Circuit Court of Appeal's ruling in the New Mexico Cattle Growers Association case (248 F.3d at 1285), which directed us to consider all impacts, ''regardless of whether those impacts are attributable co-extensively to other causes.'' As explained in the analysis, due to possible overlapping regulatory schemes and other reasons, there are also some elements of the analysis that may overstate some costs.

Conversely, the Ninth Circuit has recently ruled (''Gifford Pinchot'', 378 F.3d at 1071) that the Service's regulations defining ''adverse modification'' of critical habitat are invalid because they define adverse modification as affecting both survival and recovery of a species. The Court directed us to consider that determinations of adverse modification should be focused on impacts to recovery. While we have not yet proposed a new definition for public review and comment, compliance with the Court's direction may result in additional costs associated with the designation of critical habitat (depending upon the outcome of the rulemaking). In light of the uncertainty concerning the regulatory definition of adverse modification, our current methodological approach to conducting economic analyses of our critical habitat designations is to consider all conservation-related costs. This approach would include costs related to sections 4, 7, 9, and 10 of the Act, and should encompass costs that would be considered and evaluated in light of the *Gifford Pinchot* ruling.

In addition, we have received several credible comments on the economic analysis contending that it underestimates, perhaps significantly, the costs associated with this critical habitat designation. Both of these factors are a balancing consideration against the possibility that some of the costs shown in the economic analysis might be attributable to other factors, or are overly high, and so would not necessarily be avoided by excluding the area for which the costs are predicted from this critical habitat designation.

We excluded lands owned by Mallonee Farms in Lewis County, Washington, private timber company lands in Douglas County, Oregon, and lands managed by the Bureau of Land Management (BLM) and U.S. Forest Service (Forest Service) in Douglas County, Oregon, from the final designation of critical habitat because we believe that they are appropriate for exclusion pursuant to the ''other relevant factor'' provisions of section 4(b)(2).

Mallonee Farms

The proposed critical habitat for *Lupinus sulphureus* ssp. *kincaidii* in Lewis County, Washington, included land owned by Mallonee Farms (Farm) in the proposed critical habitat unit KL–1A. This land is occupied by *L. sulphureus* ssp. *kincaidii* and supports the features essential to the conservation

of the species. The landowners of the Farm have been working cooperatively with Federal and State agencies, including the Service, to implement recovery activities for *L. sulphureus* ssp. *kincaidii* on their property. In conjunction with the USDA Natural Resources Conservation Service, the landowners have developed a site-specific farm management plan for *L. sulphureus* ssp. *kincaidii* on their property, including unit KL–1A. Active management, such as improved grazing and forage practices, invasive plant control, and periodic monitoring in cooperation with Federal and State agencies, will allow for an adaptive management approach within the unit to benefit *L. sulphureus* ssp. *kincaidii.* The landowners also recently allowed cooperating agencies access to their property to document additional lupine patches that were not known to previously occur on the property. The landowners have demonstrated the success of their voluntary management activities on the Farm by providing habitat conditions that support several flourishing *L. sulphureus* ssp. *kincaidii* patches. Without these protective management measures, all of which require voluntary landowner support and participation, the agricultural uses of this property would likely result in extirpation of *L. sulphureus* ssp. *kincaidii* from this area.

If critical habitat designation in unit KL–1A reduces the likelihood that voluntary conservation activities will be carried out, and at the same time fails to confer a counterbalancing positive regulatory or educational benefit to the species, the benefits of excluding the unit from critical habitat outweigh the benefits of including it.

(1) Benefits of Inclusion

Critical habitat was proposed for *Lupinus sulphureus* ssp. *kincaidii* in unit KL–1A on land owned by Mallonee Farms. The primary direct benefit of inclusion of this land as critical habitat would result from the requirement under section 7 of the Act that Federal agencies consult with us to ensure that any proposed Federal actions do not destroy or adversely modify critical habitat. Without critical habitat, some site-specific projects might not trigger consultation requirements under the Act in areas where the species is not currently present; in contrast, Federal actions in areas occupied by listed species would still require consultation under section 7 of the Act. However, this unit is already occupied habitat for *L. sulphureus* ssp. *kincaidii.* Therefore, any Federal activities that may affect these areas will in all likelihood require section 7 consultation.

Historically, we have conducted no formal or informal consultations under section 7 on unit KL–1A. As a result of the low level of previous Federal activity on this land, and considering that the likelihood of future Federal activities occurring on these lands would be minimal and associated with Federal funding for conservation activities, it is our opinion that there is likely to be a low number of future Federal activities that would negatively affect *Lupinus sulphureus* ssp. *kincaidii* habitat. Therefore, we anticipate little additional regulatory benefit from including unit KL–1A in critical habitat beyond what is already provided for by the existing section 7 nexus for areas occupied by the species.

Another possible benefit from the designation of critical habitat is that designation can serve to educate the public regarding the potential conservation value of an area. By clearly delineating areas that are occupied by the species and informing the public that the area contains features essential to the conservation of the species, designation may focus and contribute to conservation efforts such as improved agricultural practices. Information provided to a wide public audience, including other parties engaged in conservation activities, about *Lupinus sulphureus* ssp. *kincaidii* and the features essential to its conservation as identified in unit KL–1A could have a positive conservation benefit. While we believe this educational outcome is important for the conservation of this species, it has already been achieved through existing management, education, and public outreach efforts carried out by the farm landowners and various Federal and State agencies.

(2) Benefits of Exclusion

Proactive voluntary conservation efforts are necessary to prevent the extinction and promote the recovery of *Lupinus sulphureus* ssp. *kincaidii* within its historic range. Consideration of this concern is especially important in areas where the species has been extirpated and its recovery may require access and permission for reintroduction efforts. For example, *L. sulphureus* ssp. *kincaidii* has been extirpated from many of its historical locations in Oregon and Washington and reestablishment is likely not possible without human assistance and non-Federal landowner cooperation.

As described above, the landowners of the Farm have cooperated with Federal and State agencies to protect *Lupinus sulphureus* ssp. *kincaidii* patches on their property. They are willing to conduct voluntary conservation activities on their property for threatened and endangered species, but may not continue these efforts if there is a significant regulatory or economic burden to do so.

The conservation benefits of critical habitat are primarily regulatory or prohibitive in nature. Where consistent with the discretion provided by the Act, we believe it is necessary to implement policies that provide positive incentives to non-Federal landowners to voluntarily conserve natural resources, and that remove or reduce disincentives to conservation (Wilcove *et al.* 1998, p. 614; Michael 2001, pp. 34 and 36–37). Thus, for the recovery of *Lupinus sulphureus* ssp. Kincaidii, we believe it is important to build on continued conservation activities such as those with a proven partner, and to provide incentives for non-Federal landowners who might be considering implementing voluntary conservation activities but have concerns about incurring incidental regulatory or economic impacts.

Approximately 80 percent of imperiled species in the United States occur partly or solely on private lands where the Service has little management authority (Wilcove *et al.* 1996 p. 2). In addition, recovery actions involving the reintroduction of listed species onto private lands require the voluntary cooperation of the landowner (Bean 2002, p. 414; James 2002, p. 270; Knight 1999, p. 224; Main *et al.* 1999, p. 1,263; Norton 2000, pp. 1,221–1,222; Shogren *et al.* 1999, p. 1,260; Wilcove *et al.* 1998, p. 614). Therefore, ''a successful recovery program is highly dependent on developing working partnerships with a wide variety of entities, and the voluntary cooperation of thousands of non-Federal landowners and others is essential to accomplishing recovery for listed species'' (Crouse *et al.* 2002, p. 720). Since land suitable for conservation of many threatened and endangered species is mostly owned by private landowners, successful recovery of *Lupinus sulphureus* ssp. *kincaidii* in Oregon and Washington is especially dependent on working partnerships and the voluntary cooperation of private landowners.

Another benefit of excluding unit KL–1A from the critical habitat designation includes relieving additional regulatory burden and costs associated with the preparation of portions of section 7 consultation documents related to critical habitat. While the cost of adding these additional sections to assessments and consultations is relatively minor, there could be delays which can

generate real costs to some project proponents. However, because critical habitat in this case only includes proposed for occupied areas already subject to section 7 consultation and jeopardy analysis, it is anticipated this reduction would be minimal.

(3) The Benefits of Exclusion Outweigh the Benefits of Inclusion

Based on the above considerations, we have determined that the benefits of excluding unit KL–1A from the final designation of critical habitat outweigh the benefits of including it as critical habitat for *Lupinus sulphureus* ssp. *kincaidii*. This conclusion is based on the following factors:

(a) In the past, the landowners have cooperated with Federal and State agencies and private organizations to implement voluntary conservation activities on their property that have resulted in tangible conservation benefits for *Lupinus sulphureus* ssp. *kincaidii*. Since purchasing the property in 1967, the landowners have maintained several healthy L. sulphureus ssp. *kincaidii* patches and developed a farm management plan to ensure that L. sulphureus ssp. *kincaidii* will continue to flourish and possibly expand on their property.

(b) Simple regulation of ''harmful activities'' is not sufficient to conserve *Lupinus sulphureus* ssp. *kincaidii*. Non-Federal landowner cooperation and support is required to prevent the extinction and promote the recovery of L. sulphureus ssp. *kincaidii* within its historic range. Future conservation efforts will require the cooperation of other non-Federal landowners. The exclusion of unit KL–1A will help the Service to maintain and improve the voluntary conservation partnership by formally recognizing the positive contributions of the landowners and by reducing unnecessary regulatory oversight.

(c) Given the current management status of the Farm, we believe there will be little additional regulatory benefit to *Lupinus sulphureus* ssp. *kincaidii* by including unit KL–1A as critical habitat because (i) there is a low likelihood that the unit will be negatively affected to any significant degree by Federal activities requiring section 7 consultation, and (ii) the unit is already occupied by the species and a section 7 nexus already exists.

In conclusion, we find that the exclusion of unit KL–1A from the final designation of critical habitat for *Lupinus sulphureus* ssp. *kincaidii* would most likely have a net positive conservation effect on the recovery and conservation of the species and the features essential to its conservation when compared to the positive conservation effects of a critical habitat designation. As described above, the overall benefit of designating the unit as critical habitat for *L. sulphureus* ssp. *kincaidii* is relatively small. In contrast, we believe that this exclusion will enhance our existing non-Federal lands partnerships, and it will set a positive example and provide positive incentives to other non-Federal landowners who may be considering implementing voluntary conservation activities on their properties. Therefore, the area included within KL–1A in the proposed critical habitat designation will be excluded from the final designation.

(4) Exclusion of This Unit Will Not Cause Extinction of the Species

In considering whether exclusion of unit KL–1A might result in the extinction of *Lupinus sulphureus* ssp. *kincaidii*, we first considered the impacts to the species. Our conclusion is that the conservation efforts on the Farm will provide as much or more net conservation benefits as would be provided if the unit was designated as critical habitat. These conservation efforts, as described above, will provide tangible proactive conservation benefits that will reduce the likelihood of extinction for *L. sulphureus* ssp. *kincaidii* in the unit, and increase the likelihood of its recovery in the local area. Extinction of *L. sulphureus* ssp. *kincaidii* as a consequence of this exclusion is unlikely; no known threats exist in thr area because any current or reasonably anticipated Federal actions would likely be regulated under section 7 of the Act. Further, the unit is already occupied by *L. sulphureus* ssp. *kincaidii* and would benefit from the section 7 protections of the Act if a Federal threat actually materialized. The exclusion of unit KL–1A from the final designation of critical habitat will not increase the risk of extinction to the species, and it may increase the likelihood that the species will recover further by encouraging other non-Federal landowners to implement voluntary conservation activities, as the landowners of the Farm have done.

Private Timber Company Lands in Douglas County

The proposed critical habitat for *Lupinus sulphureus* ssp. *kincaidii* in Douglas County, Oregon, included land owned by Roseburg Forest Products, Seneca Jones Timber Company, and Lone Rock Timber Management Company (companies) in units KL–14B, KL–15A, and KL–15B. The lands are occupied by *L. sulphureus* ssp. *kincaidii* and support the features essential to the conservation of the species. In conjunction with the Service, these companies have developed a formal voluntary agreement for the conservation of *L. sulphureus* ssp. *kincaidii* on their respective properties, including units KL–14B, KL–15A, and KL–15B. The companies agree to collaborate with us to protect and conserve *L. sulphureus* ssp. *kincaidii* populations on their private lands. Active management identified in the voluntary agreement will allow for an adaptive management approach within the units to benefit *L. sulphureus* ssp. *kincaidii*. The agreement accomplishes this through such activities as—training staff to identify *L. sulphureus* ssp. *kincaidii* and locate known population occurrence; conducting, or aiding in, monitoring within the known *L. sulphureus* ssp. *kincaidii* populations on the private lands; notifying us of new *L. sulphureus* ssp. *kincaidii* occurrences that are found; controlling noxious weeds and competing vegetation through mechanical and chemical control; and coordinating *L. sulphureus* ssp. *kincaidii* propagation activities with us for seed procurement and selection of appropriate introduction sites for establishing new populations and expanding known populations. Currently, habitat conditions that support several vigorous *L. sulphureus* ssp. *kincaidii* patches occur on these companies' lands.

If critical habitat designation in units KL–14B, KL–15A, and KL–15B reduces the likelihood that these voluntary conservation activities will be carried out, and at the same time fails to confer a counterbalancing positive regulatory or educational benefit to the species, then the benefits of excluding the units from critical habitat outweigh the benefits of including it.

(1) Benefits of Inclusion

Critical habitat was proposed for *Lupinus sulphureus* ssp. *kincaidii* in unit KL–14B on land owned by Lone Rock Timber Management Company and Seneca Jones Timber Company, and units KL–15A and KL–15B owned by Roseburg Forest Products. The primary direct benefit of inclusion of this land as critical habitat would result from the requirement under section 7 of the Act that Federal agencies consult with us to ensure that any proposed Federal action does not destroy or adversely modify critical habitat. Without critical habitat, some site-specific projects might not trigger consultation requirements under the Act in areas where the species is not currently present; in contrast, Federal actions in areas occupied by listed

species would still require consultation under section 7 of the Act. However, these units are already occupied habitat for *L. sulphureus* ssp. *kincaidii*. Therefore, any Federal activities, such as discretionary right-of-way permits, that may affect these areas will in all likelihood require section 7 consultation. The land is in permanent timber management status and is not expected to be developed. Therefore, we anticipate little additional regulatory benefits from including these private lands in critical habitat beyond what is already provided by the existing section 7 nexus for habitat areas occupied by the listed species.

Another possible benefit from the designation of critical habitat is that designation can serve to educate the public regarding the potential conservation value of an area. Information provided to a wide audience of the public, including other parties engaged in conservation activities, about *L. sulphureus* ssp. *kincaidii* and the features that are essential to its conservation identified on private timber lands in Douglas County could have a positive conservation benefit. The companies are currently in communication with us, and it is unclear that additional educational value would be provided as a result of critical habitat designation beyond the current level of awareness that exists concerning the presence of populations of *L. sulphureus* ssp. *kincaidii* that occur on the properties.

In sum, we believe that a critical habitat designation for *Lupinus sulphureus* ssp. *kincaidii* on these private timber lands in Douglas County would provide a relatively low level of additional conservation benefit to the plant beyond what is already provided by existing section 7 consultation requirements due to the physical presence of this species. Based on a review of past consultations and consideration of the likely future activities in this specific area, there is little Federal activity expected to occur on this privately owned land that would trigger section 7 consultation. We also believes it is unlikely that critical habitat designation would provide additional educational benefits since the private timber companies are already aware of these populations and are participating with us in a voluntary agreement to conserve *L. sulphureus* ssp. *kincaidii* on their lands.

(2) Benefits of Exclusion

Proactive voluntary conservation efforts are necessary to prevent the extinction and promote the recovery of *Lupinus sulphureus* ssp. *kincaidii* within its historic range in Douglas County. Consideration of this concern is especially important in areas where the species has been extirpated and its recovery may require access and permission for reintroduction efforts. For example, *L. sulphureus* ssp. *kincaidii* has been extirpated from many of its historical locations in Oregon and Washington, and reestablishment is likely not possible without human assistance and non-Federal landowner cooperation.

As described above, the companies are cooperating with Federal agencies to protect *Lupinus sulphureus* ssp. *kincaidii* patches on their properties. They are willing to conduct voluntary conservation activities on their property for endangered species, but may not continue these efforts if there is a significant regulatory or economic burden to do so.

The conservation benefits of critical habitat are primarily regulatory or prohibitive in nature. Where consistent with the discretion provided by the Act, we believe it is necessary to implement policies that provide positive incentives to non-Federal landowners to voluntarily conserve natural resources, and that remove or reduce disincentives to conservation (Wilcove *et al.* 1998, p. 614; Michael 2001, pp. 34 and 36–37). Therefore, for the recovery of *Lupinus sulphureus* ssp. *Kincaidii,* we believe it is important to build on continued conservation activities such as those with a committed partner, and to provide incentives for non-Federal landowners who might be considering implementing voluntary conservation activities but have concerns about incurring incidental regulatory or economic impacts.

Approximately 80 percent of imperiled species in the United States occur partly or solely on private lands where the Service has little management authority (Wilcove *et al.* 1996 p. 2). In addition, recovery actions involving the reintroduction of listed species onto private lands require the voluntary cooperation of the landowner (Bean 2002, p. 414; James 2002, p. 270; Knight 1999, p. 224; Main *et al.* 1999, p. 1,263; Norton 2000, pp. 1,221–1,222; Shogren *et al.* 1999, p. 1,260; Wilcove *et al.* 1998, p. 614). Therefore, ''a successful recovery program is highly dependent on developing working partnerships with a wide variety of entities, and the voluntary cooperation of thousands of non-Federal landowners and others is essential to accomplishing recovery for listed species'' (Crouse *et al.* 2002, p. 720). Since land suitable for conservation of many threatened and endangered species is mostly owned by private landowners, successful recovery of *Lupinus sulphureus* ssp. *kincaidii* in Oregon and Washington is especially dependent upon working partnerships and the voluntary cooperation of private landowners.

We believe that *Lupinus sulphureus* ssp. *kincaidii* will benefit substantially from the companies' voluntary management actions to protect existing populations, reduce nonnative weed competition, and expand existing populations through propagation efforts. The conservation benefits of critical habitat are primarily regulatory or prohibitive in nature; simply preventing ''harmful activities'' will not slow the extinction of listed plant species (Bean 1998).

(3) The Benefits of Exclusion Outweigh the Benefits of Inclusion

Based on the above considerations, we have determined that the benefits of excluding the lands owned by Roseburg Forest Products, Seneca Jones Timber Company, and Lone Rock Timber Management Company from the final designation of critical habitat outweigh the benefits of including it as critical habitat for *Lupinus sulphureus* ssp. *kincaidii.* This conclusion is based on the following factors:

(a) The companies are cooperating with Federal agencies to implement voluntary conservation activities on their properties that are expected to result in tangible conservation benefits for *Lupinus sulphureus* ssp. *kincaidii.* A formal voluntary agreement has been signed by the companies and the Service. This agreement includes conservation actions that will maintain several vigorous *L. sulphureus* ssp. *kincaidii* patches and ensure that *L. sulphureus* ssp. *kincaidii* will continue to flourish and possibly expand on their properties.

(b) Regulation of ''harmful activities'' is not sufficient to conserve this species. Landowner cooperation and support is required to prevent the extinction and promote the recovery of *Lupinus sulphureus* ssp. *kincaidii* due to the need to implement proactive conservation actions such as avoidance, weed control, and fire suppression. The voluntary agreement will promote conservation actions such as control of nonnative species and in doing so will require the cooperation of the three private timber companies. Exclusion of land from this critical habitat designation will help us maintain and improve this partnership by formally recognizing the positive contributions of the companies to recovery of *L. sulphureus* ssp. *kincaidii,* and by

streamlining or reducing unnecessary regulatory oversight.

Excluding this private land from critical habitat may, by way of example, provides positive incentives to other non-Federal landowners in Oregon whose lands could contribute to listed species recovery if voluntary conservation measures are implemented on them.

(c) The designation of critical habitat can serve to educate the general public as well as conservation organizations regarding the potential conservation value of an area, but this goal is already being accomplished through ongoing communication between the companies, Roseburg BLM, and the Service. Likewise, there will be little additional Federal regulatory benefit to the species because (i) there is a low likelihood that this area will be negatively affected to any significant degree by Federal activities requiring section 7 consultation, and (ii) this area is already occupied by the listed species and a section 7 nexus already exists. We are unable to identify any other potential benefits associated with critical habitat for the private lands.

In conclusion, we find that the exclusion of units KL–14B, KL–15A, and KL–15B from the final designation of critical habitat for *Lupinus sulphureus* ssp. *kincaidii* would most likely have a net positive conservation effect on the recovery and conservation of the species and the features essential to its conservation when compared to the positive conservation effects of a critical habitat designation. As described above, the overall benefits to this species of a critical habitat designation for the companies' lands is relatively small. In contrast, we believe that this exclusion will enhance our existing partnership with the companies, and it will set a positive example and provide positive incentives to other non-Federal landowners who may be considering implementing voluntary conservation activities on their lands. There is a higher likelihood of beneficial conservation activities occurring without designated critical habitat than there would be with designated critical habitat on these private lands. Therefore, we are excluding units KL–14B, KL–15A, and KL–15B from the final designation of critical habitat for *L. sulphureus* ssp. *kincaidii.*

(4) Exclusion of These Units Will Not Cause Extinction of the Species

In considering whether exclusion of units KL–14B, KL–15A, and KL–15B might result in the extinction of *Lupinus sulphureus* ssp. *kincaidii,* we first considered the impacts to the species. Our conclusion is that the voluntary conservation efforts of these companies will provide as much or more net conservation benefits as would be provided if the units were designated as critical habitat. These conservation efforts, as described above, will provide tangible proactive conservation benefits that will reduce the likelihood of extinction for *L. sulphureus* ssp. *kincaidii* in the units and increase the likelihood of its recovery in the local area. Extinction of *L. sulphureus* ssp. *kincaidii* as a consequence of this exclusion is unlikely because there are no known threats in this area due to any current or reasonably anticipated Federal actions that might be regulated under section 7 of the Act. Further, the units are already occupied by *L. sulphureus* ssp. *kincaidii* and would benefit from the section 7 protections of the Act, if a Federal threat actually materialized. The exclusion of units KL–14B, KL–15A, and KL–15B from the final designation of critical habitat will not increase the risk of extinction to the species, and it may increase the likelihood that the species will recover further by encouraging other non-Federal landowners to implement voluntary conservation activities, as the landowners of the companies have done.

Roseburg District Bureau of Land Management and U.S. Forest Service Lands

On April 19, 2006, we signed a conservation agreement with the Roseburg BLM and Forest Service for lands they manage in Douglas County, Oregon. The purpose of the agreement is to formally document the intent of the parties to implement recovery actions for *Lupinus sulphureus* ssp. *kincaidii.* Specifically, the agreement identifies objectives to protect, conserve, and restore habitat for each of the *L. sulphureus* ssp. *kincaidii* populations occurring on these Federal lands. The goal of this agreement is to implement the recovery actions necessary to meet the specific recovery criteria for *L. sulphureus* ssp. *kincaidii* in the Douglas County Recovery Zone, as specified in the Recovery Outline published by Service (USFWS 2006, pp. 12–18).

The conservation agreement contains management direction that would serve to protect, conserve and contribute to the recovery by implementing recovery actions for *Lupinus sulphureus* ssp. *kincaidii.* The objectives and goals in the conservation agreement were developed specifically for *L. sulphureus* ssp. *kincaidii.* Two key standards provide strong assurances that *L. sulphureus* ssp. *kincaidii* will be protected and managed on the BLM and Forest Service lands. The standards are (1) all *L. sulphureus* ssp. *kincaidii* sites will be protected on BLM and Forest Service lands in Douglas County, and (2) recovery plan criteria as listed in the Recovery Outline (USFWS 2006, pp. 12–18) for *L. sulphureus* ssp. *kincaidii* will be implemented (BLM *et al.* 2006, p. 2). A site-specific draft management plan will be developed by December 31, 2006, and will trigger consultation with us under section 7 of the Act.

In addition to the conservation plan that BLM and Forest Service voluntarily signed, several other voluntary activities demonstrate BLM's and Forest Service's commitment to conservation of *Lupinus sulphureus* ssp. *kincaidii* and other listed species. Over the last 5 years, these agencies have completed annual *L. sulphureus* ssp. *kincaidii* surveys that have led to the identification of new populations. Roseburg BLM has developed a conservation technique that has improved habitat. Specifically, they identified the use of cattle exclusion fencing benefits *L. sulphureus* ssp. *kincaidii.* The Forest Service conducted a 3-year study on the effects of herbivory, using leaf clipping as a surrogate, to *L. sulphureus* ssp. *kincaidii,* and has enhanced protection of the population by excluding cattle from the areas occupied by the plant. The Forest Service and BLM also actively manage and protect lands in an effort to help in the recovery of other federally listed species such as *Plagiobothrys hirtus* (rough popcornflower), northern spotted owl (*Strix occidentalis caurina*), American bald eagle (*Haliaeetus leucocephalus*) and marbled murrelet (*Brachyramphus marmoratus*).

We believe that the standards and guidelines outlined in the conservation agreement and the agencies commitment to protect and recover federally listed species through section 7(a)(1) and 7(a)(2), adequately address identified threats to *Lupinus sulphureus* ssp. *kincaidii* and its habitat. Therefore, the relative benefits of inclusion of these lands within designated critical habitat are diminished.

(1) Benefits of Inclusion

The primary effect of designating any particular area as critical habitat is the requirement for Federal agencies to consult with us pursuant to section 7 of the Act to ensure actions they carry out, authorize, or fund do not destroy or adversely modify designated critical habitat. Absent critical habitat designation, Federal agencies remain obligated under section 7 to consult

with us on actions that may affect a federally listed species to ensure such actions do not jeopardize the species' continued existence. The Forest Service and BLM routinely consult with us for activities on lands they manage that may affect federally listed species to ensure that the continued existence of such species is not jeopardized.

Designation of critical habitat may also provide educational benefits by informing land managers of areas essential to the conservation of the *Lupinus sulphureus* ssp. *kincaidii.* In the case of Roseburg BLM and the Umpqua National Forest, there is no appreciable educational benefit because these land managers have already demonstrated their knowledge and understanding of habitat for the species through their active recovery efforts and consultation. The benefits of including these Federal lands in designated critical habitat are minimal, because the land managers are currently implementing conservation actions for *L. sulphureus* ssp. *kincaidii* and are committed to meeting recovey criteria for *L. sulphureus* ssp. *kincaidii* in Douglas County. This is equal to or exceeds benefits that would be realized if critical habitat were designated.

(2) Benefits of Exclusion

Designation of critical habitat on the Umpqua National Forest and Roseburg BLM lands would trigger a requirement for the Forest Service and BLM to consult on activities that may affect designated critical habitat. Designation of critical habitat would also require reinitiating consultation on ongoing activities where a consultation may have already been completed that assessed the effects to a federally listed species. If critical habitat is designated there will be new administrative costs associated with the additional consultations or the need to revisit completed consultations. The benefit of using those resources for specific conservation activities exceeds the benefit of completing additional consultations. If the area is designated as critical habitat, it might adversely impact the agencies' ability to devote limited resources to the voluntary conservation measures noted above, which exceed those that could be realized from a critical habitat designation.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

We find that the benefits of designating critical habitat for *Lupinus sulphureus* ssp. *kincaidii* on Federal lands in Douglas County are small in comparison to the benefits of excluding these specific areas from the final designation. Exclusion would enhance the partnership efforts with the BLM and Forest Service focused on conservation of the species on the lands they manage, and potentially reduce some of the administrative costs during consultation pursuant to section 7 of the Act. Therefore, we find the benefits of exclusion outweigh the benefits of inclusion.

(4) The Exclusion Will Not Result in Extinction of the Species

We believe that the exclusion of Douglas County Federal lands from critical habitat would not result in the extinction of *Lupinus sulphureus* ssp. *kincaidii,* because current conservation efforts and conservation agreement commitments for Douglas County Federal lands adequately protect important *L. sulphureus* ssp. *kincaidii* habitat and go beyond this to provide appropriate management to maintain and enhance the primary constituent elements in order to specifically meet recovery criteria for *L. sulphureus* ssp. *kincaidii.* Designation of critical habitat would not require the current conservation efforts, but only that habitat not be destroyed or adversely modified. There is no reason to believe that this exclusion would result in extinction of the species.

Economic Analysis

Section 4(b)(2)of the Act requires us to designate critical habitat on the basis of the best scientific information available and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We may exclude areas from critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as critical habitat. We cannot exclude such areas from critical habitat when such exclusion will result in the extinction of the species concerned.

Following the publication of the proposed critical habitat designation, we conducted an economic analysis to estimate the potential economic effect of the designation. The draft analysis was made available for public review on June 15, 2006 (71 FR 34566). We accepted comments on the draft analysis until June 30, 2006.

The primary purpose of the economic analysis is to estimate the potential economic impacts associated with the designation of critical habitat for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii,* or *Erigeron decumbens* var. *decumbens.* This information is intended to assist the Secretary in making decisions about whether the benefits of excluding particular areas from the designation outweigh the benefits of including those areas in the designation. This economic analysis considers the economic efficiency effects that may result from the designation, including habitat protections that may be co-extensive with the listing of the species. It also addresses distribution of impacts, including an assessment of the potential effects on small entities and the energy industry. This information can be used by the Secretary to assess whether the effects of the designation might unduly burden a particular group or economic sector.

This analysis focuses on the direct and indirect costs of the rule. However, economic impacts to land use activities can exist in the absence of critical habitat. These impacts may result from, for example, local zoning laws, State and natural resource laws, and enforceable management plans and best management practices applied by other State and Federal agencies. Economic impacts that result from these types of protections are not included in the analysis as they are considered to be part of the regulatory and policy baseline.

The economic analysis addresses the effects of Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii,* or *Erigeron decumbens* var. *decumbens* conservation efforts on activities occurring on lands proposed for designation. The potential activities anticipated to have economic effects may include development, management of public and conservancy lands, transportation operations, and the Benton County Habitat Conservation Plan (HCP). Development-related losses account for 35 percent of forecasted costs; another 30 percent of the forecasted costs are associated with managing public and conservancy lands costs; another 30 percent of forecasted costs are associated with transportation operations, and 5 percent are associated with the Benton County Habitat Conservation Planning (HCP) costs.

In the economic impact analysis, development impacts are presented based on the assumption that due to the small, tightly defined boundaries of the critical habitat designation, where development falls within critical habitat boundaries and there is a Federal nexus, it would be difficult for development to proceed without adversely modifying critical habitat. Post-designation costs are expected to range from $25.3 to $52.7 million in undiscounted 2006 dollars. In present value terms, this range is equivalent to $19.1 to $40.3 million (assuming a 3 percent discount

rate) and $15.3 to $32.6 million (assuming a 7 percent discount rate). The total economic impacts are not uniformly distributed across the habitat subunits. In fact, there is a large variation in economic impacts between subunits that contain privately owned developable land. Land use restrictions are expected to have the greatest economic impact in subunit Fender's blue butterfly (FBB)–8 (Wren), which includes overlap with *Lupinus sulphureus* ssp. *kincaidi* (KL)–9 (also named Wren). This unit includes the largest area of privately owned land (713 acres). Subunit FBB–4B (Baskett Butte) contains the next largest area of private land within the critical habitat designation (327 acres). Together, these subunits contain almost 50 percent of the private land within the critical habitat designation, and account for approximately 45 percent of the development-related economic impacts, which represents 10 percent of the total costs/impacts.

Pursuant to section 4(b)(2) of the Act, we must consider relevant impacts in addition to economic ones. We determined that the lands within the designation of critical habitat for Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii,* or *Erigeron decumbens* var. *decumbens* are not owned or managed by the Department of Defense; there are currently no habitat conservation plans for Fender's blue butterfly, *L. sulphureus* ssp. *kincaidii,* or *E. decumbens* var. *decumbens;* and the designation does not include any Tribal lands or trust resources. We anticipate no impact to national security, Tribal lands, partnerships, or habitat conservation plans from this critical habitat designation. Based on the best available information, including the prepared economic analysis, we believe that all of these units contain the features essential for the conservation of this species. Our economic analysis indicates an overall low cost resulting from the designation. Therefore, we have found no areas for which the benefits of exclusion outweigh the benefits of inclusion for Fender's blue butterfly, *L. sulphureus* ssp. *kincaidii,* or *E. decumbens* var. *decumbens* based on economic impacts.

A copy of the final economic analysis with supporting documents is included in our administrative record and may be obtained by contacting U.S. Fish and Wildlife Service, Branch of Endangered Species (*see* **ADDRESSES** section) or by down from the Internet at *http://www.fws.gov/oregonfwo/Species/ESA-Actions/WillValleyPage.asp.*

Required Determinations

Regulatory Planning and Review

In accordance with Executive Order 12866, this document is a significant rule in that it may raise novel legal and policy issues. On the basis of the final economic analysis, we have determined that the post designation costs may range from $25.3 to $52.7 million in undiscounted 2006 dollars. In present value terms, this range is equivalent to $19.1 to $40.3 million (assuming a 3 percent discount rate) and $15.3 to $32.6 million (assuming a 7 percent discount rate). As such, this designation will not have an annual effect on the economy of $100 million or more or affect the economy in a material way. Due to the tight timeline for publication in the **Federal Register**, the Office of Management and Budget (OMB) has not formally reviewed this rule.

Further, Executive Order 12866 directs Federal Agencies promulgating regulations to evaluate regulatory alternatives (Office of Management and Budget, Circular A–4, September 17, 2003). Pursuant to Circular A–4, once it has been determined that the Federal regulatory action is appropriate, the agency will need to consider alternative regulatory approaches. Since the determination of critical habitat is a statutory requirement under the Act, we must then evaluate alternative regulatory approaches, where feasible, when promulgating a designation of critical habitat.

In developing our designations of critical habitat, we consider economic impacts, impacts to national security, and other relevant impacts under section 4(b)(2) of the Act. Based on the discretion allowable under this provision, we may exclude any particular area from the designation of critical habitat providing that the benefits of such exclusion outweigh the benefits of specifying the area as critical habitat, and that such exclusion would not result in the extinction of the species. As such, we believe that the evaluation of the inclusion or exclusion of particular areas, or combined thereof, in a designation constitutes our regulatory alternative analysis.

As explained above, we prepared an economic analysis of this action. We used this analysis to meet the requirement of section 4(b)(2) of the Act to determine the economic consequences of designating the specific areas as critical habitat. We also used it to help determine whether to exclude any area from critical habitat, as provided for under section 4(b)(2).

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA) (as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (*i.e.*, small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of an agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a statement of factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA also amended the RFA to require a certification statement.

Small entities include small organizations, such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; as well as small businesses. Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and agricultural businesses with annual sales less than $750,000. To determine if potential economic impacts to these small entities are significant, we consider the types of activities that might trigger regulatory impacts under this rule, as well as the types of project modifications that may result. In general, the term ''significant economic impact'' is meant to apply to a typical small business firm's business operations.

To determine if the rule could significantly affect a substantial number of small entities, we consider the number of small entities affected within particular types of economic activities (*e.g.*, housing development, grazing, oil and gas production, timber harvesting). We apply the ''substantial number'' test individually to each industry to determine if certification is appropriate. However, the SBREFA does not

explicitly define ''substantial number'' or ''significant economic impact.'' Consequently, to assess whether a ''substantial number'' of small entities is affected by this designation, this analysis considers the relative number of small entities likely to be impacted in an area. In some circumstances, especially with critical habitat designations of limited extent, we may aggregate across all industries and consider whether the total number of small entities affected is substantial. In estimating the number of small entities potentially affected, we also consider whether their activities have any Federal involvement.

Designation of critical habitat only affects activities conducted, funded, or permitted by Federal agencies. Some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. Federal agencies already are required to consult with us under section 7 of the Act on activities they fund, permit, or implement that may affect Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, or *Erigeron decumbens* var. *decumbens*. Federal agencies also must consult with us if their activities may affect critical habitat. Designation of critical habitat, therefore, could result in an additional economic impact on small entities due to the requirement to reinitiate consultation for ongoing Federal activities.

In our draft economic analysis of this designation, we evaluated the potential economic effects on small business entities resulting from the protection of the prairie species and their habitat related to the species and proposed designation of critical habitat. The potential activities anticipated to have economic effects may include development, management of public and conservancy lands, transportation operations, and the Benton County Habitat Conservation Plan (HCP). Development-related losses account for 35 percent of forecasted costs; another 30 percent of the forecasted costs are associated with managing public and conservancy lands costs; another 30 percent of forecasted costs are associated with transportation operations, and 5 percent are associated with the Benton County Habitat Conservation Planning (HCP) costs.

Small entities identified in the economic analysis included forestry, agriculture, and five cities. The potential impacts to the identified small entities are small. One family-owned forestry business was identified within the critical habitat designation and represents only one of 494 businesses within the eight-county critical habitat boundary that may be affected. It is estimated in the draft economic analysis that conservation activities may cost the company about $1,000 to $3,000 annually. The draft economic analysis also analyzed all agricultural operations and concluded that the impacts by conservation efforts are considered small (the potential farms to be impacted represent about 1.2 percent of the total small farms in the eight-county critical habitat boundary). Of the five small governments identified in the draft economic analysis, only Dallas was identified as an entity potentially impacted by conservation activities. The costs were estimated to be approximately 0.08 to 0.5 percent of the City's annual expenditures.

In general, two different mechanisms in section 7 consultations could lead to additional regulatory requirements for the approximately four small businesses, on average, that may be required to consult with us each year regarding their project's impact on Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, or *Erigeron decumbens* var. *decumbens* and their habitat. First, if we conclude, in a biological opinion, that a proposed action is likely to jeopardize the continued existence of a species or adversely modify its critical habitat, we can offer ''reasonable and prudent alternatives.'' Reasonable and prudent alternatives are alternative actions that can be implemented in a manner consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that would avoid jeopardizing the continued existence of listed species or result in adverse modification of critical habitat. A Federal agency and an applicant may elect to implement a reasonable and prudent alternative associated with a biological opinion that has found jeopardy or adverse modification of critical habitat. An agency or applicant could alternatively choose to seek an exemption from the requirements of the Act or proceed without implementing the reasonable and prudent alternative. However, unless an exemption were obtained, the Federal agency or applicant would be at risk of violating section 7(a)(2) of the Act if it chose to proceed without implementing the reasonable and prudent alternatives.

Second, if we find that a proposed action is not likely to jeopardize the continued existence of a listed animal or plant species, we may identify reasonable and prudent measures designed to minimize the amount or extent of take and require the Federal agency or applicant to implement such measures through nondiscretionary terms and conditions. We may also identify discretionary conservation recommendations designed to minimize or avoid the adverse effects of a proposed action on listed species or critical habitat, help implement recovery plans, or to develop information that could contribute to the recovery of the species.

Based on our experience with consultations pursuant to section 7 of the Act for all listed species, virtually all projects—including those that, in their initial proposed form, would result in jeopardy or adverse modification determinations in section 7 consultations—can be implemented successfully with, at most, the adoption of reasonable and prudent alternatives. These measures, by definition, must be economically feasible and within the scope of authority of the Federal agency involved in the consultation. We can only describe the general kinds of actions that may be identified in future reasonable and prudent alternatives. These are based on our understanding of the needs of the species and the threats it faces, as described in the final listing rule and this critical habitat designation. Within the final critical habitat units, the types of Federal actions or authorized activities that we have identified as potential concerns are:

(1) Actions that would further degrade or destroy prairie habitat supporting populations of Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, or *Erigeron decumbens* var. *decumbens*. Such activities could include, but are not limited to, the removal or destruction of prairie habitat by grading, leveling, plowing, mowing, burning, operation of motorized equipment, herbicide spraying, or intensive grazing. These activities could eliminate or reduce the habitat necessary for Fender's blue butterfly by removing the host plant essential for reproduction and larval feeding, as well as adult nectaring plants. Additionally, removal or destruction of habitat further isolates populations and increases the risk of inbreeding depression. Implementation of these activities in prairie habitat supporting *L. sulphureus* ssp. *kincaidii* or *E. decumbens* var. *decumbens* could directly eliminate individuals and the potential for essential population growth and expansion in the available ''open spaces'' of native short-grass prairie habitat.

(2) Actions that further isolate or reduce genetic interchange among populations of Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, or *Erigeron decumbens* var. *decumbens*

from extant locations within a unit or between subunits. Such activities could include, but are not limited to, the construction or expansion of roads, houses, buildings, or infrastructure that limit dispersal of the Fender's blue butterfly between lupine patches, and limit the dispersal of plant pollinators between *L. sulphureus* ssp. *kincaidii* and *E. decumbens* var. *decumbens* populations. These activities reduce the opportunity for population growth and decrease genetic diversity by limiting normal breeding behaviors.

The most likely Federal nexus by which these activities would be consulted upon include: Regulation of activities affecting waters of the United States by the Corps under section 404 of the Clean Water Act; road construction and maintenance, and right-of-way designation funded by the Federal Highway Administration; Federal regulation of agricultural activities; hazard mitigation and post-disaster repairs funded by the Federal Emergency Management Agency; and activities funded by the Environmental Protection Agency, U.S. Department of Agriculture, or any other Federal agency.

It is likely that a developer or other project proponent could modify a project or take measures to protect Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, or *Erigeron decumbens* var. *decumbens*. The kinds of actions that may be included if future reasonable and prudent alternatives become necessary include conservation set-asides, management of competing nonnative species, restoration of degraded habitat, and regular monitoring. These are based on our understanding of the needs of the species and the threats it faces, as described in the final listing rule and proposed critical habitat designation. These measures are not likely to result in a significant economic impact to project proponents.

In summary, we have considered whether this critical habitat designation would result in a significant economic effect on a substantial number of small entities. We have determined, for the above reasons and based on currently available information, that it is not likely to affect a substantial number of small entities. Federal involvement, and thus section 7 consultations, would be limited to a subset of the area designated. The most likely Federal involvement could include Corps permits, permits we may issue under section 10(a)(1)(B) of the Act, Federal Highways Administration funding for road improvements, and Federal funding for conservation activities. A regulatory flexibility analysis is not required.

Small Business Regulatory Enforcement Fairness Act (5 U.S.C 801 et seq.)

Under SBREFA, this rule is not a major rule. Our detailed assessment of the economic effects of this designation is described in the economic analysis. Based on the effects identified in the economic analysis, we have determined that this rule will not have an annual effect on the economy of $100 million or more, will not cause a major increase in costs or prices for consumers, and will not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. Refer to the final economic analysis for a discussion of the effects of this determination.

Executive Order 13211

On May 18, 2001, the President issued Executive Order 13211 on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. This final rule to designate critical habitat for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens* is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following findings:

(a) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, Tribal governments, or the private sector and includes both ''Federal intergovernmental mandates'' and ''Federal private sector mandates.'' These terms are defined in 2 U.S.C. 658(5)–(7). ''Federal intergovernmental mandate'' includes a regulation that ''would impose an enforceable duty upon State, local, or tribal governments'' with two exceptions. It excludes ''a condition of federal assistance.'' It also excludes ''a duty arising from participation in a voluntary Federal program,'' unless the regulation ''relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority,'' if the provision would ''increase the stringency of conditions of assistance'' or ''place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding'' and the State, local, or Tribal governments ''lack authority'' to adjust accordingly. (At the time of enactment, these entitlement programs were: Medicaid; AFDC work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement.) ''Federal private sector mandate'' includes a regulation that ''would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance; or (ii) a duty arising from participation in a voluntary Federal program.''

The designation of critical habitat does not impose a legally binding duty on non-Federal government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities who receive Federal funding, assistance, permits or otherwise require approval or authorization from a Federal agency for an action may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply; nor would critical habitat shift the costs of the large entitlement programs listed above on to State governments.

(b) We do not believe that this rule will significantly or uniquely affect small governments because it will not produce a Federal mandate of $100 million or greater in any year, that is, it is not a ''significant regulatory action'' under the Unfunded Mandates Reform Act. The designation of critical habitat imposes no obligations on State or local governments. As such, Small Government Agency Plan is not required.

Federalism

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping

with DOI and Department of Commerce policy, we requested information from, and coordinated development of this final critical habitat designation with, appropriate State resource agencies in Oregon and Washington. The designation of critical habitat in areas currently occupied by the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, or *Erigeron decumbens* var. *decumbens* may impose nominal additional regulatory restrictions to those currently in place and, therefore, may have little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments in that the areas that contain the features essential to the conservation of the species are more clearly defined, and the primary constituent elements of the habitat necessary to the conservation of the species are specifically identified. While making this definition and identification does not alter where and what federally sponsored activities may occur, it may assist these local governments in long-range planning (rather than waiting for case-by-case section 7 consultations to occur).

Civil Justice Reform

In accordance with Executive Order 12988, the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of the Endangered Species Act. This final rule uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs of the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, and *Erigeron decumbens* var. *decumbens*.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act. This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act

It is our position that, outside the Tenth Circuit, we do not need to prepare environmental analyses as defined by the NEPA in connection with designating critical habitat under the Endangered Species Act of 1973, as amended. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This assertion was upheld in the courts of the Ninth Circuit (*Douglas County* v. *Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 116 S. Ct. 698 (1996).

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 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. We have determined that there are no Tribal lands occupied at the time of listing, and no tribal lands that are unoccupied that contain the features essential for the conservation of the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, or *Erigeron decumbens* var. *decumbens*. Therefore, critical habitat for the Fender's blue butterfly, *Lupinus sulphureus* ssp. *kincaidii*, or *Erigeron decumbens* var. *decumbens* has not been designated on Tribal lands.

References Cited

A complete list of all references cited in this rulemaking is available upon request from the Field Supervisor, Oregon Fish and Wildlife Office (*see* **ADDRESSES** section).

Author(s)

The primary author of this package is Mikki Collins, Oregon Fish and Wildlife Office, U.S. Fish and Wildlife Service.

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

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

PART 17—[AMENDED]

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

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

■ 2. In § 17.11(h), revise the entry for ''Fender's blue butterfly'' under ''INSECTS'' to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
*	*	*	*	*	*	*	
INSECTS							
*	*	*	*	*	*	*	
Butterfly, Fender's blue.	*Icaricia icarioides fenderi.*	U.S.A. (OR)	NA	E	679	17.95(i)	NA
*	*	*	*	*	*	*	

■ 3. In § 17.12(h), revise the entry for *Erigeron decumbens* var. *decumbens* (Willamette daisy) and *Lupinus sulphureus* ssp. *kincaidii* (Kincaid's lupine) under ''FLOWERING PLANTS'' to read as follows:

§ 17.12 Endangered and threatened plants.

* * * * *

(h) * * *

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
FLOWERING PLANTS							
*	*	*	*	*	*	*	
Erigeron decumbens var. *decumbens*.	Willamette daisy	U.S.A. (OR)	Asteraceae—Aster family.	E	679	17.96	NA
*	*	*	*	*	*	*	
Lupinus sulphureus ssp. *kincaidii*.	Kincaid's lupine	U.S.A (OR, WA)	Fabaceae—Pea family.	T	679	17.96	NA
*	*	*	*	*	*	*	

■ 4. In § 17.95(i), add an entry for ''Fender's blue butterfly'' in alphabetical order under ''INSECTS'' to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(i) *Insects.*

* * * * *

Fender's blue butterfly (*Icaricia icarioides fenderi*)

(1) Critical habitat units are depicted for Benton, Lane, Polk, and Yamhill Counties, Oregon, on the maps below.

(2) The primary constituent elements of critical habitat for Fender's blue butterfly are the habitat components that provide:

(i) Early seral upland prairie, wet prairie, or oak savanna habitat with a mosaic of low-growing grasses and forbs, an absence of dense canopy vegetation, and undisturbed subsoils;

(ii) Larval host-plants *Lupinus sulphureus* ssp. *kincaidii, L. arbustus,* or *L. albicaulis;*

(iii) Adult nectar sources, such as:*Allium acuminatum* (tapertip onion), *Allium amplectens* (narrowleaf onion), *Calochortus tolmiei* (Tolmie's mariposa lilly), *Camassia quamash* (small camas), *Cryptantha intermedia* (clearwater cryptantha), *Eriophyllum lanatum* (wooly sunflower), *Geranium oreganum* (Oregon geranium), *Iris tenax* (toughleaf iris), *Linum angustifolium* (pale flax), *Linum perenne* (blue flax), *Sidalcea campestris* (Meadow checkermallow), *Sidalcea virgata* (rose checker-mallow), *Vicia cracca* (bird vetch), *V. sativa* (common vetch), and *V. hirsute* (tiny vetch);

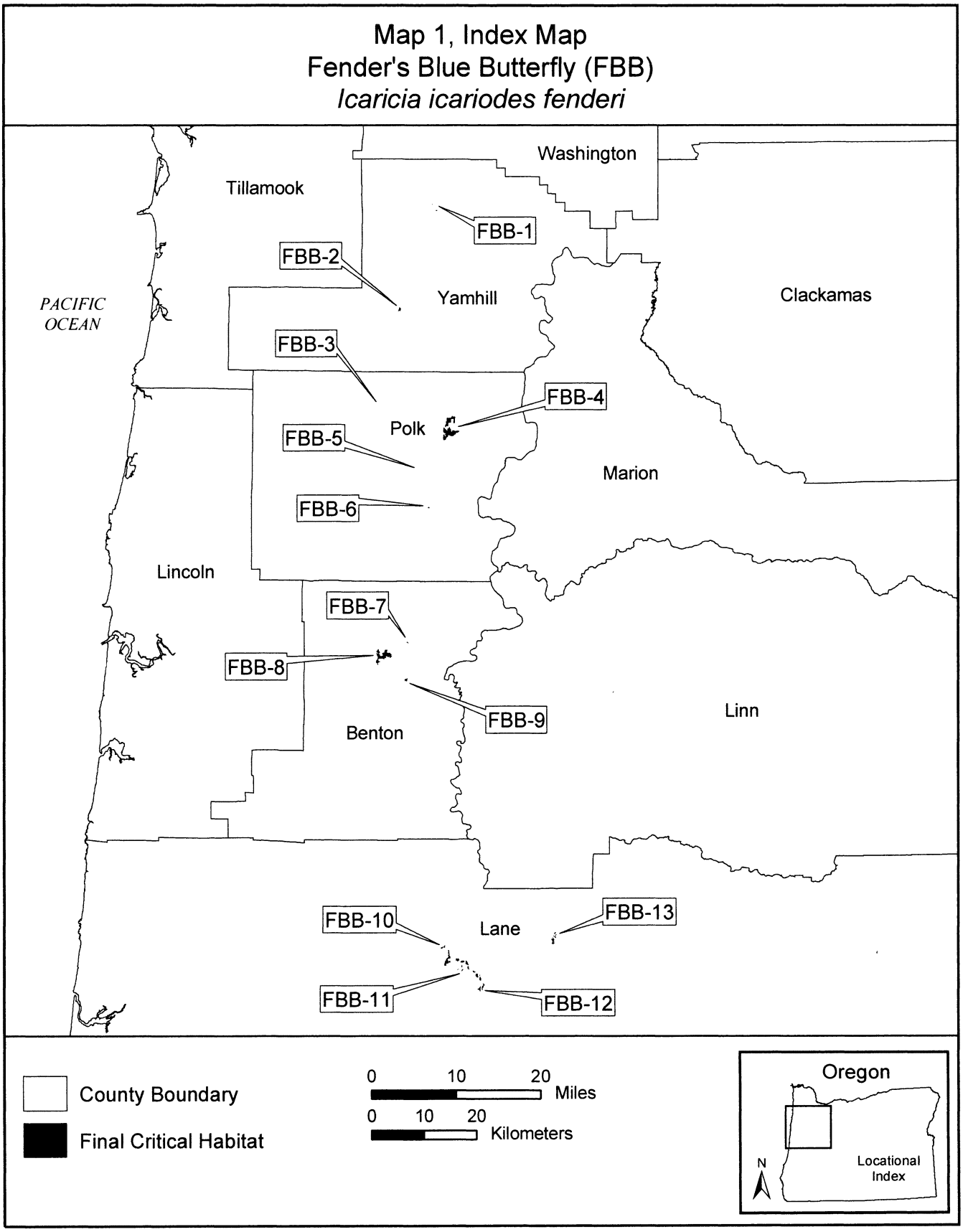
(iv) Stepping-stone habitat consisting of undeveloped open areas with the physical characteristics appropriate for supporting the short-stature prairie oak savanna plant community (well-drained soils), within ~1.2 miles (~2 km) of natal lupine patches.

(3) Critical habitat does not include man-made structures (such as buildings, aqueducts, airports, roads, and other paved areas, and the land on which such structures are located) existing on the effective date of this rule and not containing one or more of the primary constituent elements.

(4) *Critical Habitat Map Units.* Data layers defining map units were created using USGS 24,000 scale Digital Ortho Quads captured in 2000. Critical habitat units were then mapped using Universal Transverse Mercator (UTM) zone 10, North American Datum (NAD) 1983 coordinates.

(5) Note: Map 1 (Index map for Fender's blue butterfly) follows:

BILLING CODE 4310–55–P

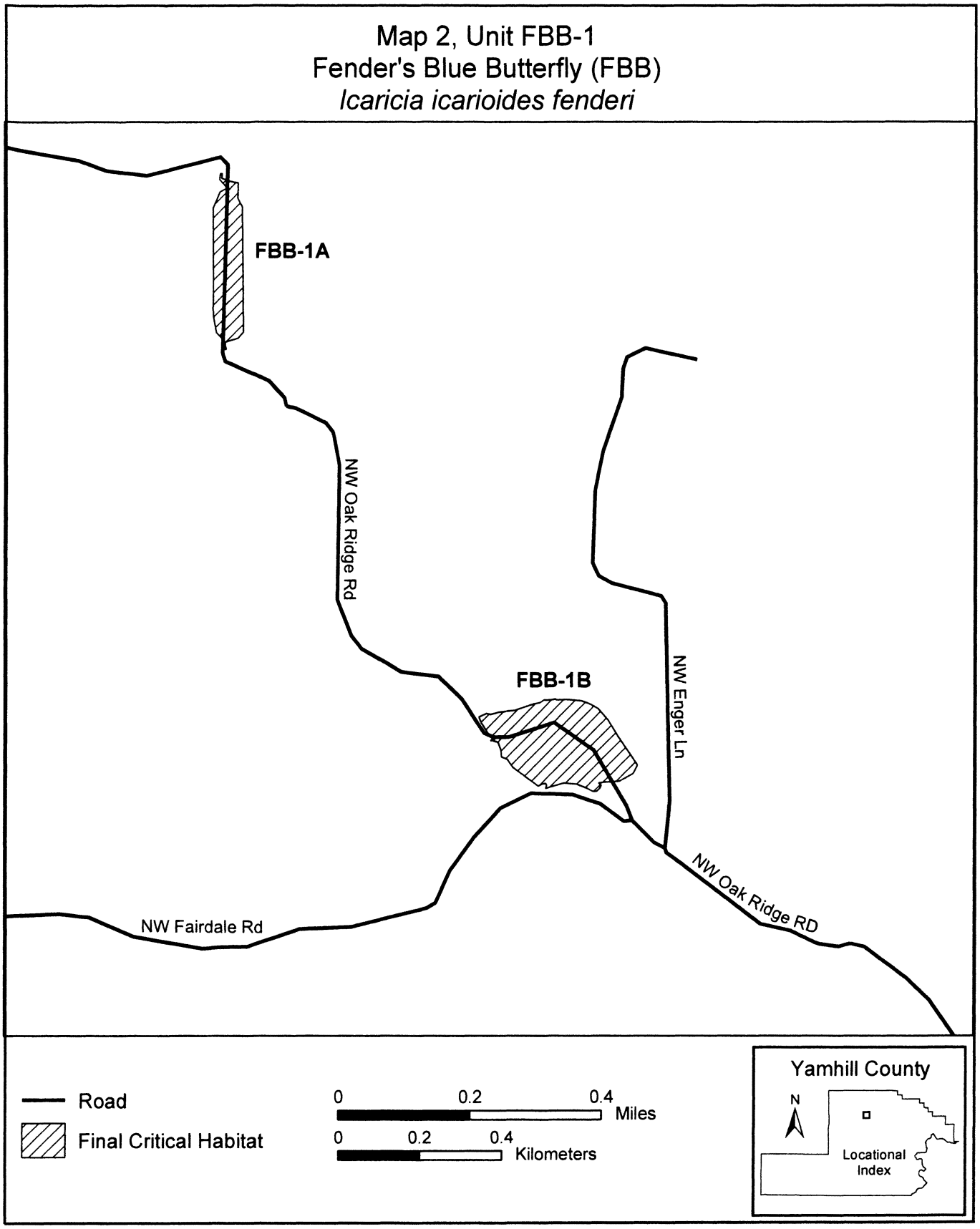

Map 1, Index Map
Fender's Blue Butterfly (FBB)
Icaricia icariodes fenderi
Washington
Tillamook
FBB-1
FBB-2
Yamhill
Clackamas
PACIFIC OCEAN
FBB-3
FBB-4
Polk
FBB-5
Marion
FBB-6
Lincoln
FBB-7
FBB-8
FBB-9
Linn
Benton
FBB-10
Lane
FBB-13
FBB-11
FBB-12
County Boundary
Final Critical Habitat
0 10 20 Miles
0 10 20 Kilometers
Oregon
N
Locational Index

(6) Unit 1 for Fender's blue butterfly (FBB–1), Yamhill County, Oregon.

(i) Unit 1A (FBB–1A): 477069, 5022493; 477070, 5022487; 477067, 5022487; 477065, 5022493; 477063, 5022498; 477063, 5022510; 477046, 5022526; 477039, 5022566; 477039, 5022576; 477038, 5022585; 477039, 5022591; 477039, 5022824; 477055, 5022862; 477073, 5022873; 477056, 5022893; 477056, 5022901; 477057, 5022907; 477061, 5022907; 477060, 5022896; 477081, 5022888; 477101, 5022884; 477099, 5022848; 477110, 5022829; 477111, 5022528; 477098, 5022513; 477069, 5022504; 477067, 5022498; 477069, 5022493.

(ii) Unit 1B (FBB–1B): 477876, 5021643; 477881, 5021641; 477902, 5021642; 477941, 5021640; 477957, 5021634; 477983, 5021620; 478008, 5021592; 478031, 5021554; 478078, 5021484; 478068, 5021464; 478035, 5021445; 477996, 5021442; 477983, 5021440; 477989, 5021435; 477986, 5021427; 477979, 5021419; 477968, 5021420; 477956, 5021427; 477931, 5021437; 477898, 5021440; 477878, 5021434; 477854, 5021427; 477857, 5021435; 477855, 5021439; 477846, 5021438; 477836, 5021433; 477812, 5021449; 477790, 5021465; 477773, 5021478; 477759, 5021499; 477745, 5021504; 477743, 5021519; 477744, 5021519; 477737, 5021537; 477732, 5021541; 477731, 5021541; 477731, 5021541; 477731, 5021541; 477731, 5021541; 477730, 5021541; 477730, 5021541; 477729, 5021541; 477727, 5021541; 477727, 5021541; 477727, 5021541; 477727, 5021541; 477727, 5021541; 477726, 5021542; 477726, 5021542; 477726, 5021542; 477726, 5021542; 477726, 5021542; 477726, 5021542; 477726, 5021542; 477726, 5021542; 477726, 5021542; 477725, 5021543; 477724, 5021543; 477724, 5021543; 477724, 5021543; 477724, 5021543; 477723, 5021543; 477723, 5021543; 477723, 5021543; 477722, 5021543; 477722, 5021544; 477721, 5021544; 477720, 5021543; 477720, 5021543; 477720, 5021543; 477720, 5021543; 477720, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477718, 5021543; 477718, 5021543; 477718, 5021543; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021545; 477718, 5021545; 477718, 5021545; 477718, 5021545; 477718, 5021545; 477718, 5021545; 477719, 5021545; 477719, 5021545; 477719, 5021545; 477719, 5021545; 477719, 5021545; 477719, 5021545; 477719, 5021545; 477719, 5021545; 477720, 5021545; 477720, 5021545; 477720, 5021545; 477721, 5021546; 477721, 5021546; 477721, 5021546; 477721, 5021546; 477721, 5021546; 477721, 5021546; 477721, 5021546; 477722, 5021546; 477722, 5021546; 477722, 5021546; 477722, 5021546; 477722, 5021546; 477723, 5021545; 477723, 5021545; 477723, 5021545; 477723, 5021545; 477723, 5021545; 477724, 5021545; 477725, 5021544; 477725, 5021544; 477725, 5021544; 477725, 5021544; 477726, 5021544; 477726, 5021544; 477726, 5021544; 477726, 5021544; 477726, 5021544; 477726, 5021544; 477727, 5021543; 477728, 5021543; 477729, 5021543; 477715, 5021554; 477698, 5021582; 477695, 5021586; 477695, 5021589; 477690, 5021600; 477691, 5021601; 477707, 5021609; 477719, 5021607; 477739, 5021612; 477777, 5021616; 477823, 5021631; 477839, 5021635; 477849, 5021641; 477867, 5021641; 477876, 5021643.

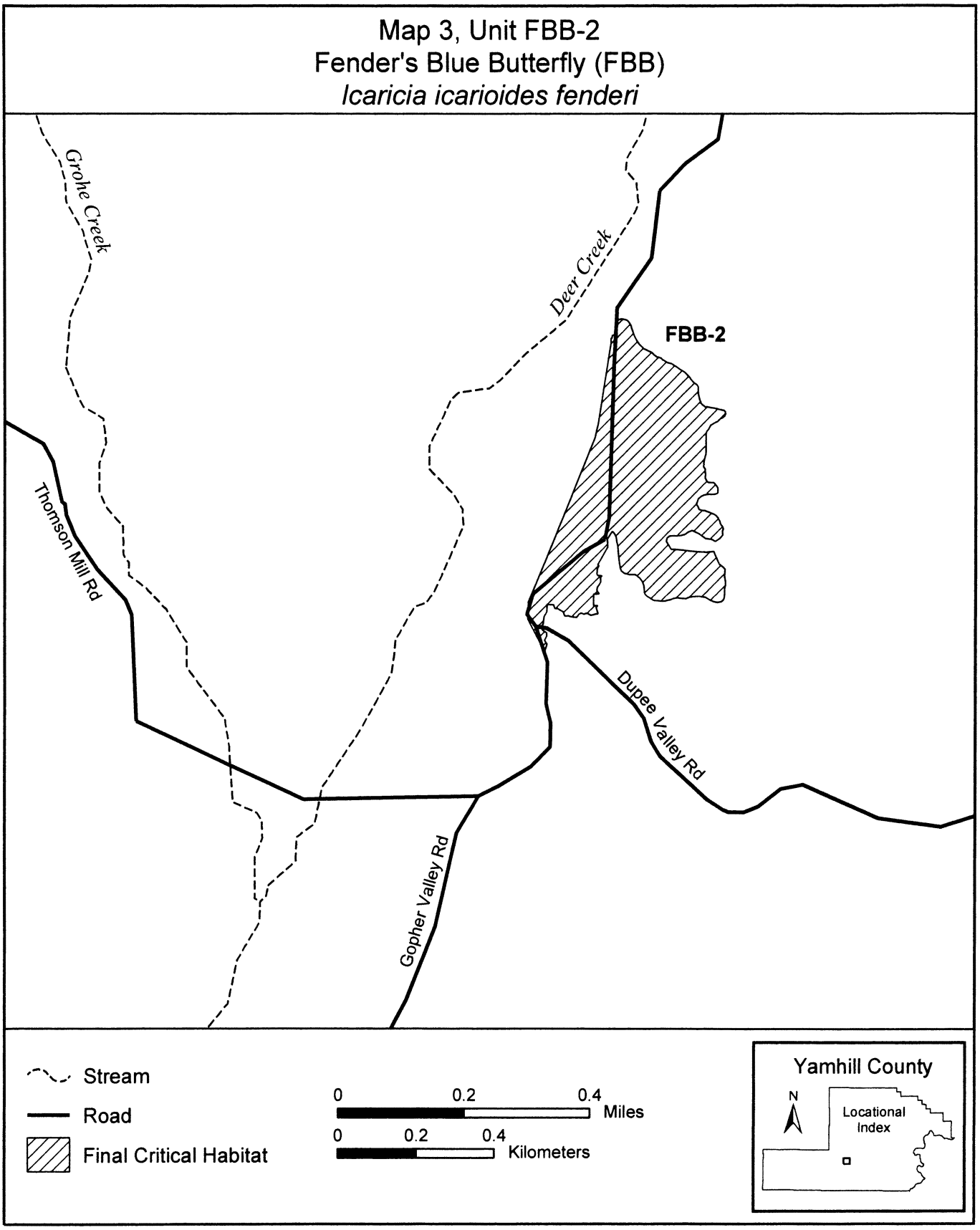
(iii) Note: Map 2 (Unit 1 for Fender's blue butterfly (FBB–1)) follows:


Map 2, Unit FBB-1
Fender's Blue Butterfly (FBB)
Icaricia icarioides fenderi
FBB-1A
NW Oak Ridge Rd
FBB-1B
NW Enger Ln
NW Oak Ridge RD
NW Fairdale Rd
Road
Final Critical Habitat
0 0.2 0.4 Miles
0 0.2 0.4 Kilometers
Yamhill County
N
Locational Index

(7) Unit 2 for Fender's blue butterfly (FBB–2), Yamhill County, Oregon.

(i) Unit 2 (FBB–2): 470959, 5003231; 470965, 5003226; 470972, 5003226; 470984, 5003224; 470992, 5003223; 471004, 5003220; 471012, 5003218; 471016, 5003215; 471018, 5003209; 471014, 5003202; 471011, 5003200; 471006, 5003198; 470998, 5003191; 470991, 5003187; 470988, 5003186; 470981, 5003180; 470977, 5003176; 470973, 5003168; 470970, 5003165; 470968, 5003159; 470968, 5003151; 470968, 5003132; 470968, 5003123; 470967, 5003109; 470965, 5003099; 470962, 5003090; 470961, 5003075; 470965, 5003070; 470966, 5003065; 470967, 5003055; 470965, 5003048; 470969, 5003041; 470974, 5003036; 470979, 5003036; 470984, 5003035; 470986, 5003035; 470990, 5003032; 470995, 5003027; 470998, 5003022; 470998, 5003015; 470998, 5003010; 470994, 5003007; 470988, 5003006; 470977, 5003006; 470973, 5003006; 470963, 5003004; 470957, 5003001; 470949, 5002996; 470947, 5002994; 470945, 5002987; 470944, 5002981; 470946, 5002976; 470949, 5002967; 470958, 5002964; 470965, 5002964; 470973, 5002962; 470981, 5002958; 470988, 5002955; 470994, 5002951; 470999, 5002946; 471004, 5002937; 471005, 5002932; 471010, 5002924; 471012, 5002918; 471010, 5002913; 471011, 5002902; 471003, 5002893; 470992, 5002886; 470982, 5002892; 470966, 5002893; 470956, 5002901; 470945, 5002909; 470932, 5002914; 470925, 5002911; 470914, 5002904; 470905, 5002901; 470893, 5002900; 470876, 5002901; 470868, 5002895; 470867, 5002887; 470879, 5002867; 470888, 5002866; 470935, 5002861; 470970, 5002859; 470988, 5002861; 470991, 5002853; 470998, 5002837; 471002, 5002828; 471012, 5002821; 471016, 5002816; 471015, 5002796; 471017, 5002785; 471017, 5002776; 471016, 5002766; 471015, 5002751; 471014, 5002740; 471012, 5002737; 471008, 5002734; 470998, 5002731; 470988, 5002734; 470981, 5002737; 470975, 5002739; 470967, 5002744; 470959, 5002745; 470951, 5002747; 470943, 5002747; 470929, 5002745; 470924, 5002744; 470917, 5002740; 470908, 5002741; 470894, 5002743; 470884, 5002741; 470878, 5002739; 470871, 5002737; 470865, 5002735; 470861, 5002735; 470853, 5002735; 470843, 5002736; 470834, 5002737; 470826, 5002742; 470819, 5002745; 470814, 5002751; 470811, 5002758; 470811, 5002764; 470809, 5002774; 470805, 5002784; 470801, 5002791; 470797, 5002795; 470787, 5002802; 470780, 5002802; 470772, 5002802; 470760, 5002805; 470752, 5002811; 470750, 5002818; 470747, 5002830; 470746, 5002840; 470744, 5002861; 470743, 5002874; 470740, 5002886; 470738, 5002896; 470735, 5002904; 470731, 5002910; 470729, 5002911; 470716, 5002892; 470717, 5002872; 470704, 5002848; 470692, 5002827; 470696, 5002824; 470691, 5002816; 470690, 5002804; 470692, 5002800; 470703, 5002799; 470698, 5002794; 470700, 5002783; 470695, 5002776; 470691, 5002769; 470690, 5002762; 470695, 5002753; 470682, 5002753; 470682, 5002723; 470692, 5002723; 470689, 5002717; 470691, 5002709; 470694, 5002702; 470684, 5002700; 470675, 5002699; 470665, 5002704; 470657, 5002701; 470651, 5002704; 470645, 5002701; 470640, 5002694; 470623, 5002696; 470617, 5002697; 470608, 5002697; 470604, 5002707; 470589, 5002716; 470582, 5002715; 470580, 5002725; 470564, 5002726; 470563, 5002707; 470555, 5002695; 470553, 5002676; 470548, 5002670; 470553, 5002660; 470562, 5002655; 470562, 5002646; 470557, 5002635; 470564, 5002625; 470557, 5002608; 470514, 5002689; 470514, 5002732; 470561, 5002844; 470604, 5002950; 470685, 5003149; 470688, 5003164; 470693, 5003185; 470725, 5003387; 470725, 5003399; 470728, 5003400; 470728, 5003406; 470733, 5003407; 470738, 5003441; 470741, 5003444; 470749, 5003447; 470755, 5003446; 470764, 5003444; 470769, 5003441; 470775, 5003430; 470778, 5003422; 470780, 5003416; 470782, 5003411; 470787, 5003400; 470790, 5003393; 470794, 5003387; 470797, 5003383; 470810, 5003372; 470817, 5003367; 470829, 5003362; 470836, 5003356; 470841, 5003352; 470852, 5003349; 470856, 5003345; 470858, 5003343; 470869, 5003337; 470878, 5003335; 470891, 5003328; 470895, 5003325; 470901, 5003320; 470914, 5003313; 470925, 5003301; 470930, 5003295; 470937, 5003286; 470945, 5003282; 470948, 5003277; 470948, 5003271; 470948, 5003260; 470951, 5003247; 470955, 5003235; 470959, 5003231.

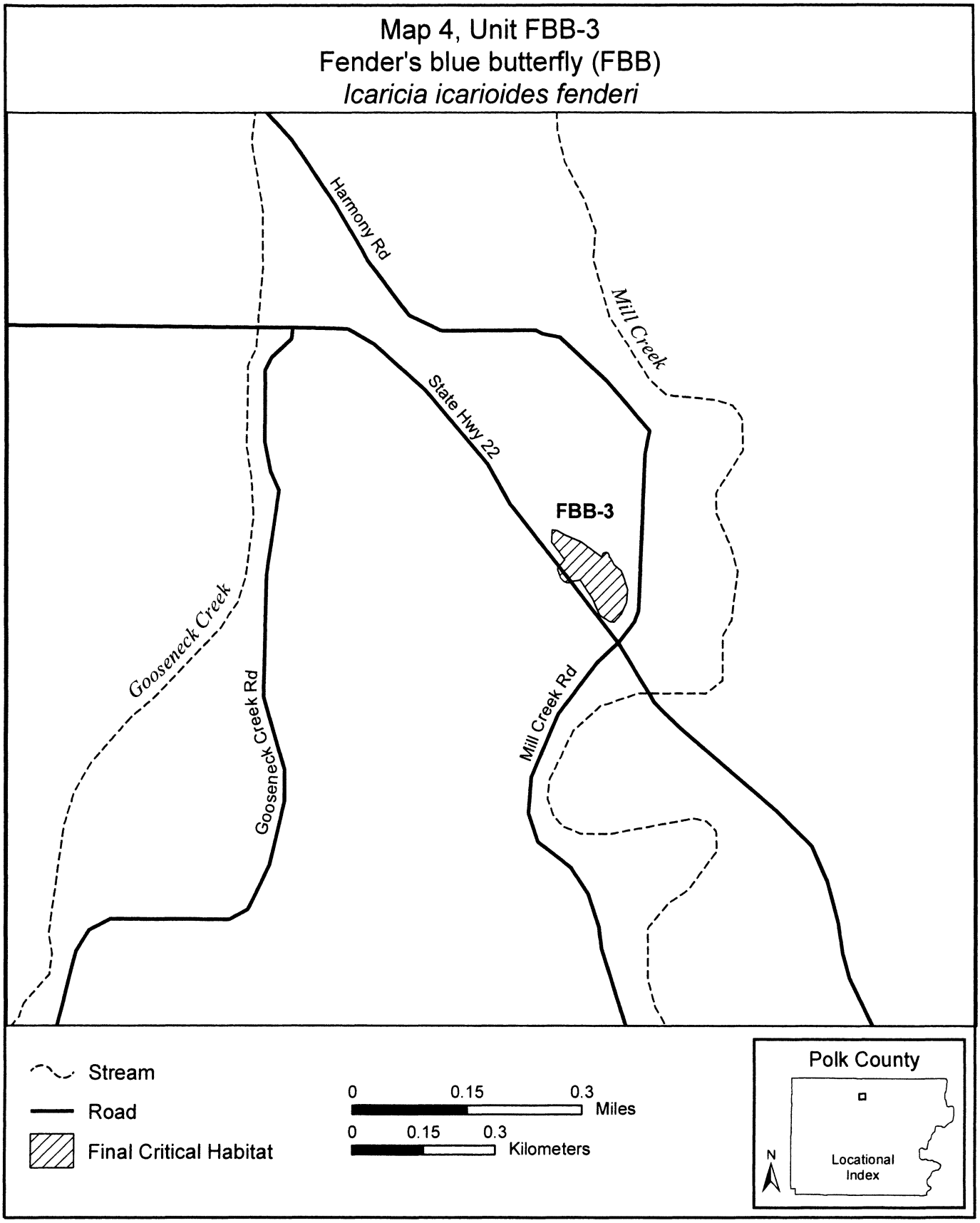
(ii) Note: Map 3 (Unit 2 for Fender's blue butterfly (FBB–2)) follows:


Map 3, Unit FBB-2
Fender's Blue Butterfly (FBB)
Icaricia icarioides fenderi
Grohe Creek
Deer Creek
FBB-2
Thomson Mill Rd
Dupee Valley Rd
Gopher Valley Rd
Stream
Road
Final Critical Habitat
0 0.2 0.4 Miles
0 0.2 0.4 Kilometers
Yamhill County
N
Locational Index

(8) Unit 3 for Fender's blue butterfly (FBB–3), Polk County, Oregon.

(i) Unit 3 (FBB–3): 466744, 4985295; 466788, 4985264; 466788, 4985266; 466788, 4985267; 466788, 4985268; 466789, 4985269; 466789, 4985270; 466790, 4985271; 466791, 4985272; 466792, 4985273; 466793, 4985273; 466795, 4985273; 466796, 4985274; 466797, 4985273; 466798, 4985273; 466800, 4985272; 466800, 4985272; 466801, 4985271; 466802, 4985270; 466802, 4985269; 466803, 4985267; 466803, 4985266; 466803, 4985265; 466802, 4985264; 466805, 4985263; 466814, 4985246; 466828, 4985234; 466834, 4985222; 466841, 4985196; 466839, 4985170; 466828, 4985145; 466814, 4985129; 466805, 4985129; 466783, 4985143; 466767, 4985178; 466742, 4985216; 466725, 4985214; 466725, 4985212; 466721, 4985211; 466718, 4985210; 466715, 4985211; 466711, 4985212; 466707, 4985213; 466700, 4985220; 466694, 4985237; 466694, 4985239; 466694, 4985241; 466696, 4985243; 466710, 4985258; 466681, 4985295; 466683, 4985320; 466691, 4985320; 466712, 4985309; 466744, 4985295.

(ii) Note: Map 4 (Unit 3 for Fender's blue butterfly (FBB–3)) follows:



BILLING CODE 4310–55–C

(9) Unit 4 for Fender's blue butterfly (FBB–4), Polk County, Oregon.

(i) Unit 4A (FBB–4A): 480420, 4981038; 480415, 4980660; 480465, 4980658; 480509, 4980632; 480539, 4980585; 480559, 4980485; 480655, 4980012; 480670, 4980021; 480700, 4980045; 480721, 4980066; 480736, 4980087; 480757, 4980126; 480772, 4980165; 480790, 4980221; 480805, 4980257; 480811, 4980275; 480850, 4980311; 480865, 4980329; 480892, 4980347; 480943, 4980338; 480973, 4980332; 480997, 4980317; 481021, 4980302; 481036, 4980287; 481093, 4980302; 481105, 4980299; 481150, 4980293; 481188, 4980278; 481215, 4980266; 481218, 4980239; 481272, 4980218; 481290, 4980218; 481335, 4980218; 481371, 4980215; 481401, 4980212; 481446, 4980212; 481473, 4980221; 481482, 4980236; 481506, 4980254; 481542, 4980257; 481584, 4980257; 481617, 4980251; 481719, 4980272; 481776, 4980281; 481926, 4980287; 482124, 4980275; 482147, 4980262; 482161, 4980236; 482177, 4980217; 482190, 4980197; 482191, 4980181; 482193, 4980161; 482184, 4980150; 482154, 4980150; 482109, 4980135; 482067, 4980117; 482058, 4980075; 482052, 4980027; 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(ii) Unit 4B (FBB–4B): 480860, 4983078; 480881, 4983054; 480869, 4983018; 480854, 4983006; 480830, 4982992; 480818, 4982974; 480821, 4982950; 480821, 4982944; 480821, 4982923; 480836, 4982905; 480845, 4982908; 480860, 4982911; 480872, 4982923; 480884, 4982938; 480896, 4982953; 480902, 4982965; 480917, 4982974; 480962, 4982956; 480968, 4982950; 480977, 4982947; 480977, 4982932; 480974, 4982905; 480992, 4982911; 481046, 4982920; 481070, 4982926; 481106, 4982932; 481157, 4982941; 481178, 4982941; 481184, 4982944; 481196, 4982950; 481205, 4982950; 481220, 4982950; 481229, 4982950; 481244, 4982956; 481253, 4982953; 481280, 4982962; 481337, 4982953; 481364, 4982932; 481364, 4982914; 481361, 4982848; 481361, 4982812; 481367, 4982770; 481355,

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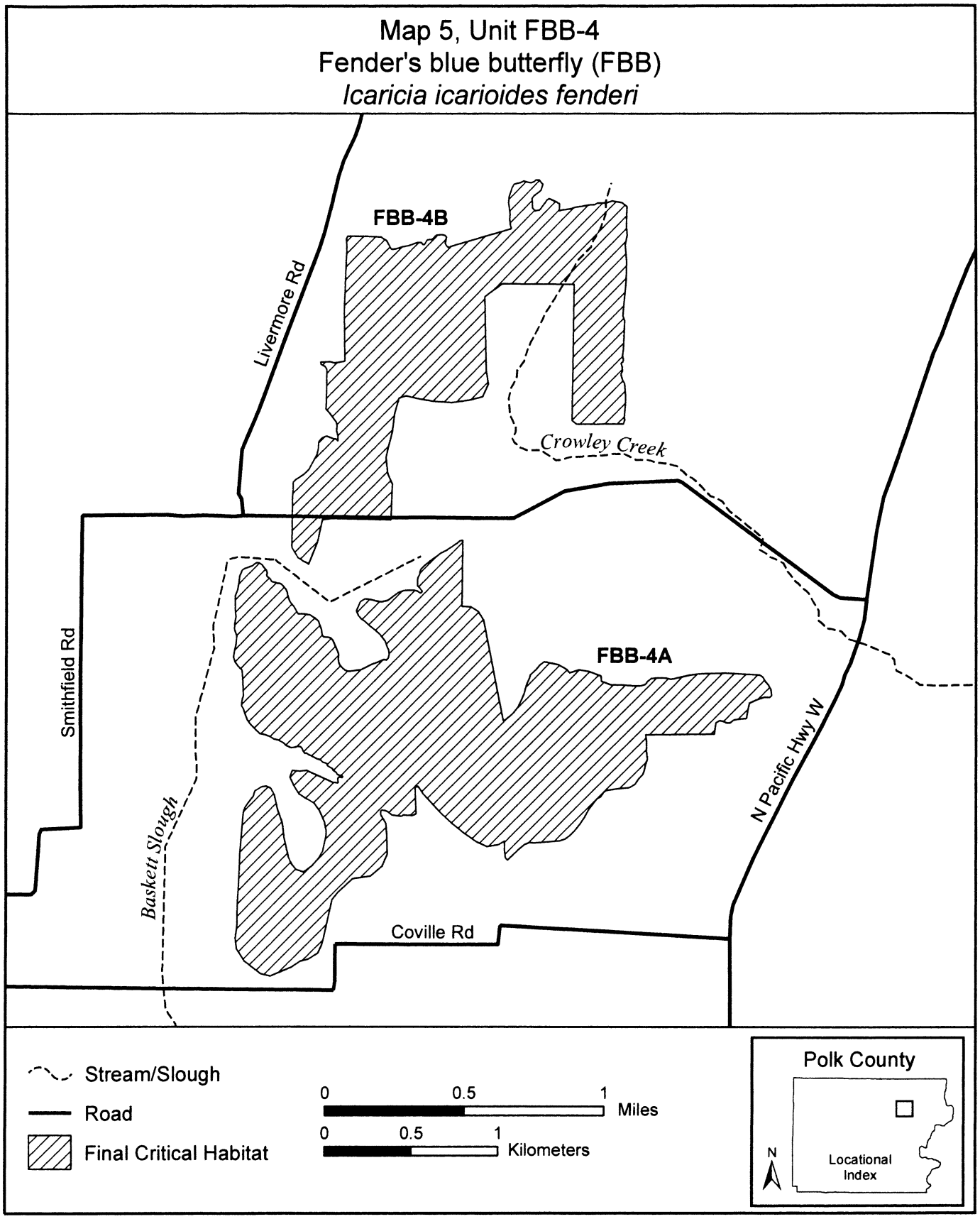
(iii) Note: Map 5 (Unit 4 for Fender's blue butterfly (FBB–4)) follows:

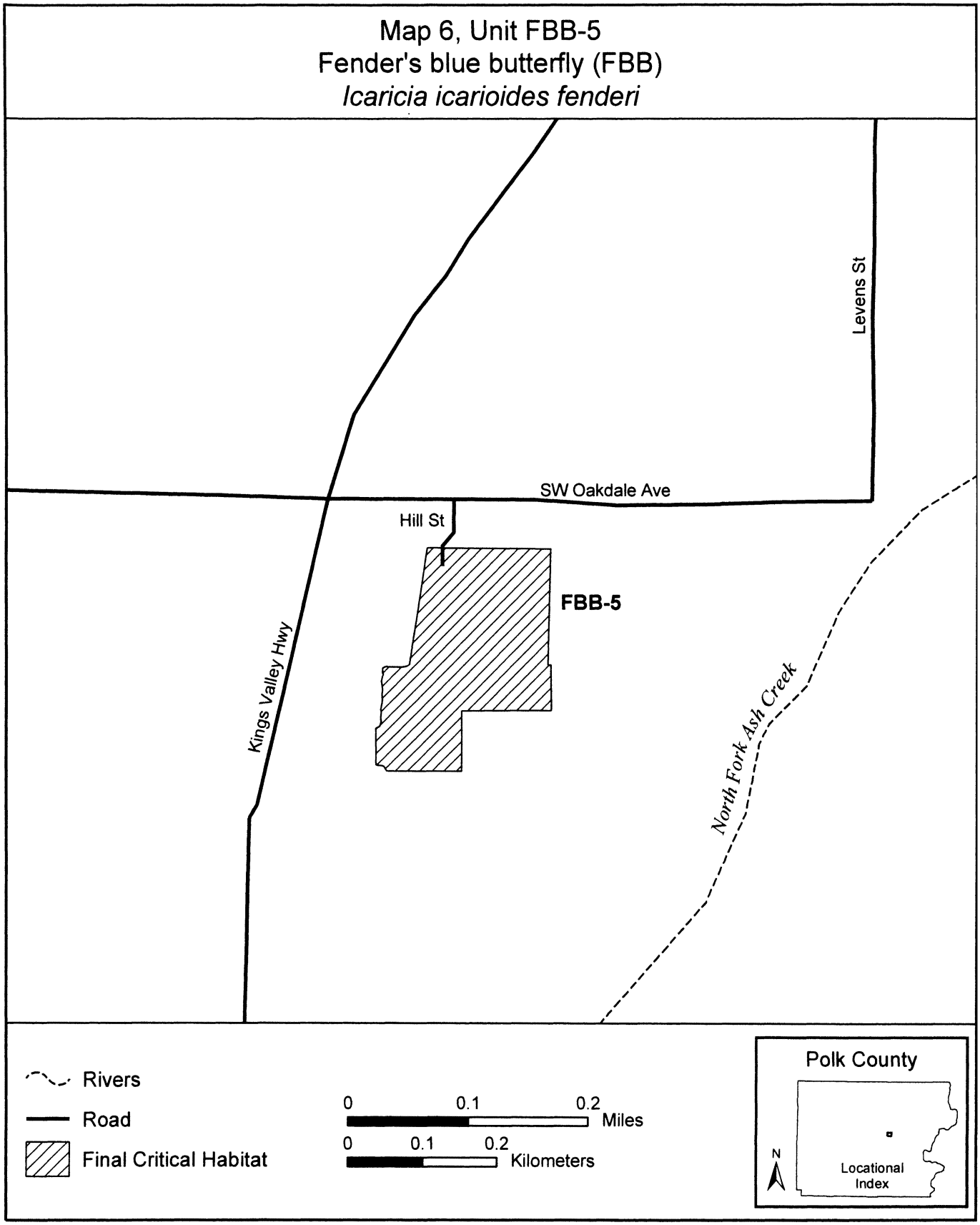
BILLING CODE 4310–55–P


Map 5, Unit FBB-4
Fender's blue butterfly (FBB)
Icaricia icarioides fenderi
FBB-4B
FBB-4A
Livermore Rd
Crowley Creek
Smithfield Rd
Baskett Slough
N Pacific Hwy W
Coville Rd
Stream/Slough
Road
Final Critical Habitat
0 0.5 1 Miles
0 0.5 1 Kilometers
Polk County
N
Locational Index

(10) Unit 5 for Fender's blue butterfly (FBB–5), Polk County, Oregon.

(i) Unit 5 (FBB–5): 474272, 4973321; 474269, 4973168; 474273, 4973168; 474274, 4973107; 474153, 4973107; 474153, 4973026; 474053, 4973026; 474051, 4973029; 474049, 4973032; 474047, 4973034; 474042, 4973034; 474039, 4973035; 474038, 4973084; 474044, 4973086; 474045, 4973092; 474045, 4973097; 474045, 4973104; 474045, 4973109; 474046, 4973116; 474047, 4973121; 474046, 4973128; 474047, 4973134; 474047, 4973139; 474046, 4973146; 474047, 4973152; 474048, 4973154; 474047, 4973158; 474048, 4973164; 474049, 4973164; 474052, 4973165; 474054, 4973165; 474061, 4973165; 474067, 4973165; 474074, 4973165; 474079, 4973166; 474083, 4973168; 474098, 4973263; 474107, 4973322; 474272, 4973321.

(ii) Note: Map 6 (Unit 5 for Fender's blue butterfly (FBB–5)) follows:

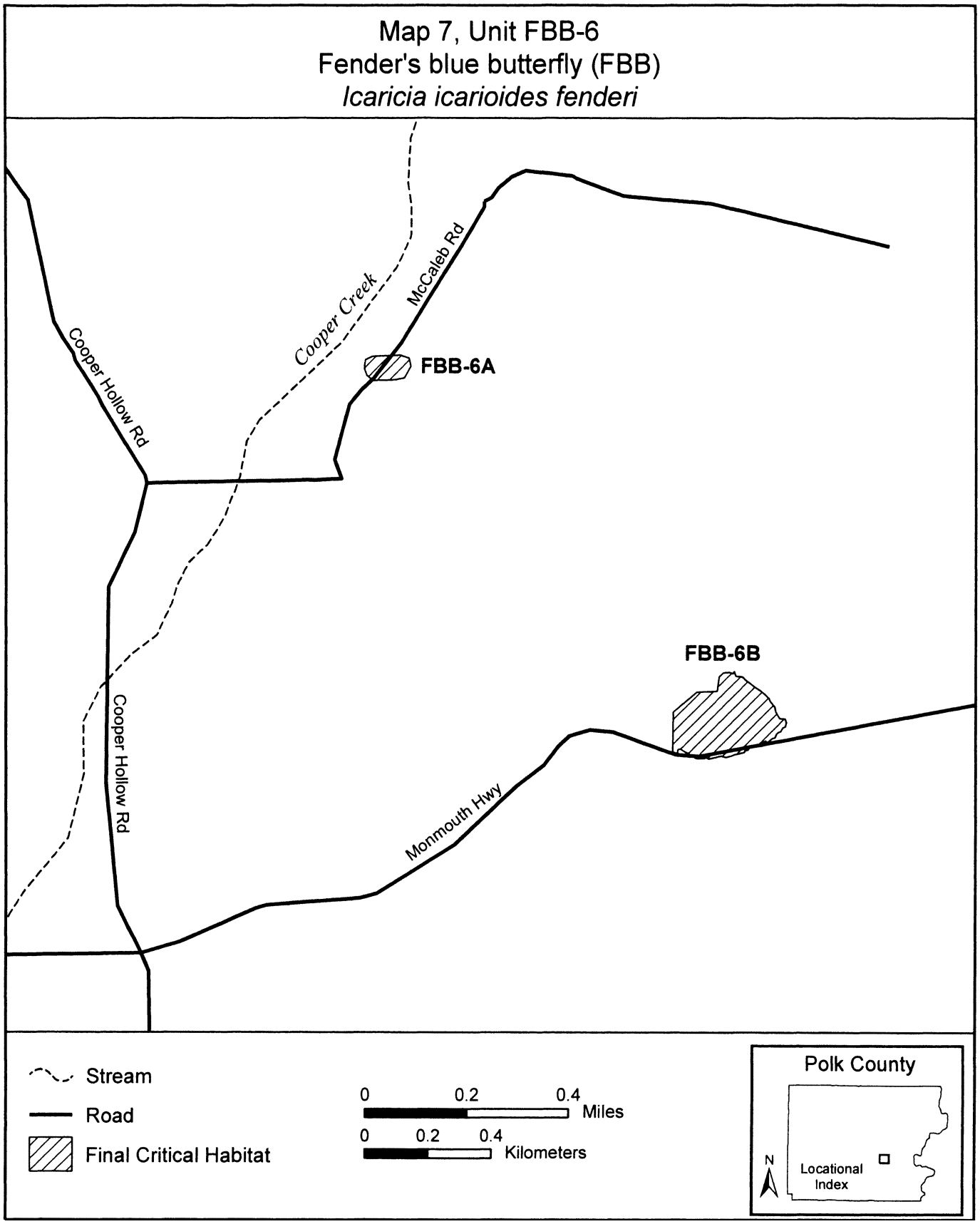

Map 6, Unit FBB-5
Fender's blue butterfly (FBB)
Icaricia icarioides fenderi
Levens St
SW Oakdale Ave
Hill St
FBB-5
Kings Valley Hwy
North Fork Ash Creek
Rivers
Road
Final Critical Habitat
0 0.1 0.2 Miles
0 0.1 0.2 Kilometers
Polk County
N
Locational Index

(11) Unit 6 for Fender's blue butterfly (FBB–6), Polk County, Oregon.

(i) Unit 6A (FBB–6A): 475279, 4966872; 475243, 4966871; 475222, 4966886; 475213, 4966910; 475218, 4966935; 475240, 4966947; 475327, 4966950; 475355, 4966941; 475361, 4966915; 475341, 4966880; 475311, 4966874; 475279, 4966872.

(ii) Unit 6B (FBB–6B): 476378, 4965968; 476384, 4965952; 476405, 4965950; 476419, 4965937; 476444, 4965919; 476463, 4965906; 476473, 4965897; 476487, 4965882; 476493, 4965872; 476506, 4965856; 476509, 4965842; 476521, 4965821; 476538, 4965819; 476542, 4965808; 476540, 4965796; 476532, 4965791; 476525, 4965780; 476519, 4965777; 476512, 4965770; 476507, 4965760; 476499, 4965757; 476493, 4965753; 476484, 4965744; 476477, 4965750; 476466, 4965743; 476463, 4965733; 476448, 4965733; 476435, 4965730; 476427, 4965729; 476423, 4965722; 476413, 4965718; 476411, 4965713; 476384, 4965707; 476355, 4965699; 476346, 4965699; 476339, 4965702; 476299, 4965693; 476290, 4965699; 476285, 4965694; 476259, 4965694; 476247, 4965701; 476238, 4965709; 476222, 4965716; 476209, 4965725; 476202, 4965722; 476202, 4965709; 476186, 4965715; 476186, 4965722; 476188, 4965840; 476262, 4965902; 476327, 4965906; 476329, 4965931; 476331, 4965951; 476344, 4965964; 476364, 4965964; 476376, 4965961; 476378, 4965968.

(iii) Note: Map 7 (Unit 6 for Fender's blue butterfly (FBB–6)) follows:


Map 7, Unit FBB-6
Fender's blue butterfly (FBB)
Icaricia icarioides fenderi
Cooper Creek
McCaleb Rd
Cooper Hollow Rd
FBB-6A
FBB-6B
Cooper Hollow Rd
Monmouth Hwy
Stream
Road
Final Critical Habitat
0 0.2 0.4 Miles
0 0.2 0.4 Kilometers
Polk County
N
Locational Index

BILLING CODE 4310–55–C

(12) Units 7, 8, and 9 for Fender's blue butterfly (FBB–7, FBB–8, and FBB–9), Benton County, Oregon.

(i) Unit 7 (FBB–7): 472041, 4940614; 472041, 4940616; 472040, 4940619; 472041, 4940623; 472043, 4940628; 472043, 4940632; 472043, 4940636; 472043, 4940639; 472045, 4940641; 472047, 4940642; 472048, 4940642; 472051, 4940646; 472051, 4940651; 472051, 4940655; 472051, 4940658; 472051, 4940660; 472050, 4940665; 472053, 4940667; 472057, 4940668; 472060, 4940670; 472063, 4940668; 472066, 4940668; 472070, 4940667; 472070, 4940663; 472073, 4940660; 472078, 4940658; 472080, 4940661; 472083, 4940662; 472087, 4940663; 472090, 4940662; 472092, 4940663; 472095, 4940664; 472100, 4940664; 472104, 4940663; 472106, 4940661; 472107, 4940659; 472109, 4940656; 472113, 4940654; 472115, 4940653; 472115, 4940650; 472117, 4940648; 472120, 4940647; 472121, 4940645; 472121, 4940641; 472122, 4940640; 472123, 4940636; 472124, 4940633; 472121, 4940632; 472116, 4940631; 472114, 4940629; 472112, 4940626; 472110, 4940622; 472110, 4940618; 472109, 4940613; 472108, 4940609; 472104, 4940605; 472102, 4940599; 472103, 4940594; 472104, 4940590; 472105, 4940586; 472105, 4940586; 472104, 4940582; 472100, 4940579; 472093, 4940558; 472089, 4940535; 472102, 4940527; 472103, 4940510; 472115, 4940498; 472124, 4940503; 472127, 4940510; 472139, 4940515; 472141, 4940507; 472138, 4940499; 472146, 4940494; 472164, 4940503; 472202, 4940512; 472206, 4940531; 472188, 4940534; 472187, 4940543; 472200, 4940547; 472206, 4940555; 472202, 4940572; 472218, 4940570; 472251, 4940569; 472260, 4940564; 472276, 4940554; 472282, 4940544; 472285, 4940531; 472293, 4940519; 472286, 4940510; 472283, 4940499; 472297, 4940500; 472300, 4940495; 472311, 4940488; 472311, 4940478; 472320, 4940474; 472338, 4940465; 472348, 4940472; 472357, 4940472; 472362, 4940461; 472368, 4940442; 472375, 4940417; 472375, 4940401; 472375, 4940393; 472376, 4940386; 472381, 4940384; 472384, 4940372; 472392, 4940365; 472407, 4940365; 472417, 4940360; 472431, 4940353; 472442, 4940342; 472442, 4940330; 472448, 4940313; 472451, 4940311; 472434, 4940281; 472417, 4940275; 472391, 4940279; 472389, 4940288; 472373, 4940293; 472366, 4940287; 472355, 4940295; 472355, 4940315; 472332, 4940334; 472332, 4940335; 472330, 4940336; 472301, 4940344; 472299, 4940360; 472299, 4940361; 472311, 4940365; 472327, 4940351; 472329, 4940349; 472342, 4940348; 472343, 4940367; 472356, 4940366; 472367, 4940381; 472367, 4940397; 472363, 4940405; 472338, 4940405; 472319, 4940428; 472305, 4940430; 472296, 4940445; 472281, 4940449; 472273, 4940443; 472273, 4940443; 472251, 4940425; 472164, 4940437; 472163, 4940436; 472159, 4940437; 472152, 4940450; 472136, 4940452; 472113, 4940447; 472102, 4940421; 472101, 4940419; 472071, 4940414; 472042, 4940422; 472034, 4940405; 472014, 4940407; 472014, 4940392; 472010, 4940384; 471999, 4940374; 471994, 4940367; 471993, 4940345; 471971, 4940342; 471946, 4940345; 471939, 4940342; 471939, 4940329; 471938, 4940303; 471930, 4940288; 471928, 4940269; 471917, 4940269; 471905, 4940275; 471902, 4940293; 471910, 4940305; 471919, 4940326; 471922, 4940338; 471932, 4940351; 471948, 4940354; 471966, 4940360; 471970, 4940368; 471976, 4940385; 471993, 4940398; 472001, 4940410; 472018, 4940418; 472024, 4940429; 472024, 4940445; 472026, 4940447; 472041, 4940454; 472049, 4940482; 472069, 4940490; 472078, 4940515; 472072, 4940521; 472074, 4940530; 472082, 4940534; 472085, 4940542; 472082, 4940565; 472080, 4940574; 472072, 4940583; 472072, 4940587; 472072, 4940587; 472072, 4940590; 472071, 4940592; 472071, 4940595; 472072, 4940596; 472073, 4940596; 472074, 4940597; 472079, 4940597; 472079, 4940602; 472077, 4940609; 472072, 4940612; 472070, 4940612; 472067, 4940612; 472065, 4940611; 472061, 4940613; 472056, 4940616; 472048, 4940615; 472046, 4940613; 472045, 4940612; 472045, 4940611; 472043, 4940611; 472041, 4940614; 472041, 4940614.

(ii) Unit 8 (FBB–8): 466807, 4938996; 466822, 4938987; 466857, 4938963; 466860, 4938942; 466813, 4938811; 466811, 4938793; 466828, 4938769; 466941, 4938694; 466944, 4938670; 467002, 4938673; 467028, 4938645; 467029, 4938608; 467021, 4938582; 466984, 4938561; 466908, 4938577; 466832, 4938387; 466805, 4938237; 466934, 4938170; 466973, 4938111; 466957, 4937968; 467029, 4937886; 467194, 4937886; 467195, 4937857; 467365, 4937876; 467379, 4937926; 467611, 4937920; 467606, 4938003; 467523, 4938171; 467492, 4938190; 467460, 4938377; 467542, 4938516; 467858, 4938596; 467858, 4938879; 467912, 4938876; 467912, 4939023; 467936, 4939032; 468294, 4939023; 468330, 4939008; 468384, 4939008; 468414, 4938891; 468339, 4938736; 468339, 4938638; 468297, 4938551; 468324, 4938509; 468427, 4938482; 468488, 4938484; 468601, 4938464; 468666, 4938425; 468749, 4938490; 468859, 4938476; 468989, 4938412; 469013, 4938386; 468981, 4938369; 468949, 4938351; 468934, 4938305; 468966, 4938282; 469004, 4938261; 469027, 4938227; 469137, 4938256; 469181, 4938244; 469192, 4938198; 469186, 4938151; 469169, 4938119; 469120, 4938105; 469076, 4938079; 469056, 4938041; 469013, 4938018; 468978, 4937948; 469007, 4937940; 469100, 4937954; 469143, 4937931; 469204, 4937919; 469276, 4937905; 469320, 4937899; 469314, 4937864; 469256, 4937859; 469230, 4937821; 469184, 4937806; 469143, 4937789; 469088, 4937737; 469053, 4937685; 469027, 4937656; 469050, 4937604; 469036, 4937589; 468981, 4937569; 468946, 4937583; 468923, 4937635; 468874, 4937633; 468853, 4937615; 468833, 4937636; 468842, 4937659; 468819, 4937699; 468833, 4937720; 468876, 4937722; 468903, 4937746; 468899, 4937788; 468871, 4937818; 468856, 4937864; 468824, 4937879; 468816, 4937847; 468752, 4937824; 468723, 4937792; 468642, 4937746; 468338, 4937844; 468259, 4937905; 468216, 4937917; 468204, 4937864; 468112, 4937768; 468118, 4937725; 468124, 4937663; 468155, 4937619; 468175, 4937569; 468182, 4937545; 468127, 4937546; 468085, 4937549; 468046, 4937531; 468031, 4937507; 468007, 4937539; 467971, 4937573; 467970, 4937597; 467920, 4937618; 467892, 4937661; 467875, 4937662; 467845, 4937645; 467840, 4937641; 467841, 4937621; 467850, 4937503; 467896, 4937426; 467889, 4937381; 467879, 4937358; 467844, 4937352; 467717, 4937354; 467525, 4937362; 467217, 4937372; 467186, 4937381; 467066, 4937388; 467055, 4937377; 467009, 4937373; 466961, 4937380; 466915, 4937382; 466860, 4937392; 466783, 4937400; 466746, 4937390; 466750, 4937358; 466727, 4937335; 466713, 4937308; 466667, 4937298; 466654, 4937262; 466659, 4937211; 466686, 4937130; 466701, 4937088; 466710, 4937034; 466703, 4937031; 466705, 4937011; 466705, 4936978; 466695, 4936938; 466754, 4936891; 466792, 4936884; 466800, 4936874; 466824, 4936872; 466851, 4936874; 466877, 4936883; 466901, 4936894; 466913, 4936893; 466920, 4936885; 466932, 4936902; 466948, 4936901; 466959, 4936896; 466985, 4936886; 467030, 4936878; 467052, 4936866; 467075, 4936863; 467076, 4936853; 467057, 4936837; 467040, 4936823; 467030, 4936810; 466999, 4936794;

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(iii) Unit 9 (FBB–9): 472296, 4933737; 472312, 4933733; 472316, 4933734; 472317, 4933734; 472317, 4933733; 472317, 4933732; 472317, 4933732; 472315, 4933731; 472319, 4933730; 472325, 4933708; 472324, 4933707; 472325, 4933685; 472276, 4933663; 472265, 4933662; 472199, 4933648; 472192, 4933641; 472149, 4933621; 472144, 4933615; 472143, 4933611; 472140, 4933608; 472139, 4933604; 472140, 4933601; 472139, 4933599; 472138, 4933594; 472140, 4933589; 472140, 4933584; 472142, 4933581; 472148, 4933580; 472145, 4933576; 472145, 4933572; 472150, 4933570; 472159, 4933573; 472165, 4933575; 472169, 4933578; 472176, 4933582; 472182, 4933584; 472189, 4933585; 472194, 4933582; 472198, 4933579; 472201, 4933574; 472201, 4933571; 472201, 4933566; 472199, 4933561; 472194, 4933558; 472189, 4933556; 472188, 4933552; 472185, 4933550; 472184, 4933546; 472179, 4933544; 472176, 4933540; 472174, 4933534; 472169, 4933534; 472163, 4933533; 472158, 4933532; 472154, 4933529; 472151, 4933526; 472147, 4933525; 472146, 4933518; 472144, 4933513; 472142, 4933509; 472146, 4933505; 472147, 4933500; 472144, 4933496; 472144, 4933489; 472147, 4933487; 472148, 4933475; 472148, 4933469; 472149, 4933462; 472150, 4933455; 472151, 4933448; 472146, 4933447; 472146, 4933445; 472150, 4933441; 472156, 4933440; 472156, 4933436; 472151, 4933437; 472147, 4933433; 472148, 4933428; 472149, 4933421; 472146, 4933422; 472145, 4933413; 472145, 4933406; 472144, 4933395; 472147, 4933390; 472147, 4933383; 472147, 4933378; 472150, 4933375; 472151, 4933370; 472146, 4933370; 472146, 4933363; 472147, 4933342; 472148, 4933340; 472149, 4933336; 472149, 4933331; 472151, 4933321; 472151, 4933314; 472152, 4933306; 472156, 4933289; 472157, 4933267; 472158, 4933251; 472159, 4933239; 472159, 4933225; 472160, 4933213; 472161, 4933206; 472162, 4933195; 472163, 4933186; 472158, 4933167; 472147, 4933161; 472144, 4933165; 472139, 4933170; 472131, 4933175; 472127, 4933169; 472123, 4933166; 472122, 4933162; 472115, 4933158; 472111, 4933152; 472108, 4933145; 472106, 4933139; 472104, 4933137; 472104, 4933130; 472109, 4933128; 472112, 4933123; 472117, 4933124; 472121, 4933124; 472122, 4933119; 472123, 4933115; 472122, 4933112; 472118, 4933111; 472112, 4933108; 472109, 4933103; 472102, 4933103; 472096, 4933104; 472091, 4933106; 472085, 4933106; 472079, 4933107; 472074, 4933104; 472073, 4933097; 472069, 4933090; 472069, 4933086; 472067, 4933081; 472068, 4933072; 472064, 4933070; 472059, 4933071; 472053, 4933070; 472052, 4933065; 472047, 4933062; 472041, 4933063; 472039, 4933067; 472037, 4933071; 472032, 4933071; 472030, 4933071; 472027, 4933073; 472024, 4933074; 472020, 4933073; 472016, 4933073; 472010, 4933074; 472005, 4933090; 472003, 4933094; 472003, 4933101; 472007, 4933106; 472009, 4933111; 472007, 4933116; 472004, 4933116; 472004, 4933120; 472002, 4933125; 472001, 4933128; 472002, 4933134; 472004, 4933137; 472002, 4933140; 472002, 4933143; 472007, 4933146; 472009, 4933153; 472010, 4933160; 472011, 4933165; 472013, 4933170; 472016, 4933176; 472018, 4933179; 472015, 4933183; 472015, 4933186; 472019, 4933186; 472021, 4933190; 472020, 4933195; 472016, 4933198; 472011, 4933215; 472003, 4933221; 471996, 4933227; 471990, 4933231; 471989, 4933240; 471983, 4933257; 471982, 4933268; 471977, 4933277; 471976, 4933282; 471972, 4933282; 471968, 4933281; 471962, 4933280; 471962, 4933280; 471962, 4933280; 471961, 4933278; 471960, 4933276; 471958, 4933273; 471957, 4933271; 471957, 4933271; 471956, 4933271; 471956, 4933268; 471956, 4933266; 471955, 4933263; 471955, 4933260; 471955, 4933257; 471954, 4933257; 471953, 4933258; 471950, 4933257; 471947, 4933257; 471944, 4933256; 471942, 4933255; 471939, 4933253; 471936, 4933251; 471934, 4933251; 471929, 4933247; 471929, 4933247; 471929, 4933247; 471929, 4933245; 471928, 4933244; 471927, 4933242; 471925, 4933240; 471924, 4933239; 471922, 4933237; 471921, 4933237; 471919, 4933236; 471917, 4933236; 471915, 4933235; 471913, 4933236; 471911, 4933235; 471909, 4933235; 471908, 4933234; 471906, 4933234; 471904, 4933233; 471904, 4933233; 471904, 4933233; 471903, 4933233; 471902, 4933232; 471899, 4933230; 471897, 4933228; 471895, 4933227; 471894, 4933227; 471893, 4933224; 471892, 4933222; 471888, 4933220; 471884, 4933218; 471882, 4933217; 471876, 4933214; 471873, 4933212; 471870, 4933211; 471868, 4933209; 471865, 4933208; 471862, 4933207; 471859, 4933205; 471859, 4933205; 471859, 4933205; 471859, 4933203; 471854, 4933190; 471854, 4933190; 471853, 4933188; 471851, 4933183; 471851, 4933183; 471850, 4933182; 471850, 4933173; 471850, 4933171; 471850, 4933170; 471850, 4933166; 471850, 4933164; 471850, 4933162; 471850, 4933161; 471850, 4933159; 471848, 4933159; 471847, 4933158; 471846, 4933158; 471845, 4933158;

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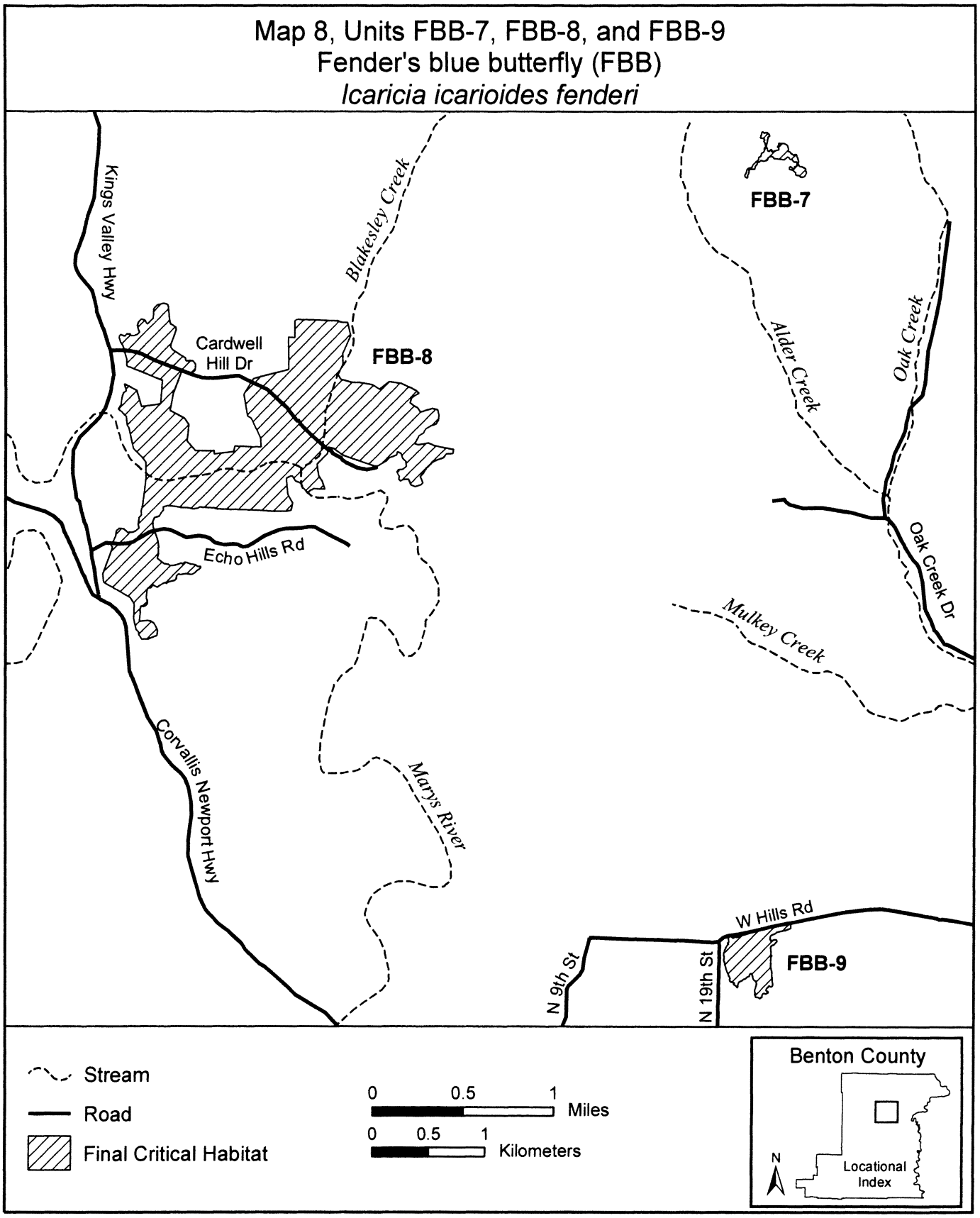
(iv) Note: Map 8 (Units 7, 8, and 9 for Fender's blue butterfly (FBB–7, FBB–8, and FBB–9)) follows:

BILLING CODE 4310–55–P



BILLING CODE 4310–55–C

(13) Units 10, 11, and 12 for Fender's blue butterfly (FBB–10, FBB–11, and FBB–12) in Lane County, Oregon.

(i) Unit 10A (FBB–10A): 479362, 4883342; 479389, 4883340; 479413, 4883340; 479442, 4883333; 479454, 4883325; 479444, 4883317; 479419, 4883305; 479409, 4883299; 479403, 4883279; 479397, 4883259; 479385, 4883239; 479377, 4883216; 479371, 4883204; 479373, 4883192; 479373, 4883176; 479375, 4883162; 479371, 4883148; 479361, 4883128; 479357, 4883120; 479353, 4883108; 479365, 4883104; 479365, 4883104; 479366, 4883104; 479370, 4883102; 479372, 4883091; 479372, 4883083; 479371, 4883075; 479369, 4883061; 479365, 4883041; 479361, 4883025; 479345, 4883003; 479332, 4883007; 479332, 4883007; 479331, 4883007; 479333, 4882993; 479321, 4882977; 479305, 4882968; 479282, 4882968; 479266, 4882969; 479246, 4882973; 479246, 4882973; 479246, 4882973; 479226, 4882972; 479219, 4882977; 479213, 4882991; 479211, 4883005; 479211, 4883005; 479210, 4883009; 479204, 4883015; 479186, 4883017; 479165, 4883013; 479149, 4883013; 479135, 4883013; 479123, 4883007; 479093, 4883009; 479059, 4883003; 479026, 4883001; 479013, 4882998; 479012, 4882998; 479010, 4882997; 479004, 4882995; 479006, 4882987; 479013, 4882982; 479013, 4882980; 479010, 4882970; 478998, 4882966; 478962, 4882964; 478931, 4882967; 478927, 4882977; 478927, 4882977; 478926, 4882977; 478913, 4882973; 478897, 4882962; 478857, 4882952; 478838, 4882954; 478832, 4882961; 478821, 4882979; 478819, 4882982; 478819, 4882982; 478819, 4882982; 478819, 4882982; 478807, 4882981; 478794, 4882977; 478778, 4882977; 478764, 4882966; 478764, 4882966; 478764, 4882965; 478770, 4882954; 478792, 4882950; 478817, 4882940; 478831, 4882918; 478841, 4882904; 478851, 4882900; 478863, 4882900; 478881, 4882900; 478891, 4882876; 478891, 4882862; 478899, 4882844; 478901, 4882831; 478893, 4882823; 478881, 4882815; 478879, 4882813; 478873, 4882801; 478861, 4882797; 478853, 4882795; 478849, 4882783; 478847, 4882775; 478837, 4882765; 478813, 4882761; 478794, 4882759; 478774, 4882759; 478758, 4882759; 478744, 4882757; 478734, 4882759; 478720, 4882759; 478700, 4882761; 478682, 4882765; 478665, 4882765; 478641, 4882765; 478627, 4882775; 478609, 4882779; 478597, 4882793; 478587, 4882801; 478577, 4882815; 478561, 4882825; 478555, 4882839; 478551, 4882846; 478540, 4882852; 478530, 4882858; 478528, 4882866; 478538, 4882876; 478543, 4882886; 478545, 4882894; 478551, 4882904; 478563, 4882916; 478569, 4882922; 478577, 4882928; 478589, 4882936; 478605, 4882946; 478617, 4882956; 478623, 4882964; 478623, 4882970; 478624, 4882970; 478623, 4882973; 478627, 4882983; 478627, 4882984; 478627, 4882983; 478619, 4882997; 478595, 4883005; 478573, 4883007; 478555, 4883007; 478534, 4883009; 478508, 4883005; 478508, 4883005; 478507, 4883005; 478480, 4882999; 478454, 4882997; 478442, 4882989; 478429, 4882989; 478419, 4882997; 478419, 4882997; 478418, 4882997; 478411, 4882989; 478403, 4882979; 478397, 4882964; 478386, 4882946; 478382, 4882940; 478366, 4882933; 478352, 4882939; 478349, 4882940; 478341, 4882948; 478333, 4882956; 478333, 4882956; 478333, 4882956; 478331, 4882954; 478317, 4882944; 478296, 4882954; 478298, 4882969; 478304, 4882985; 478322, 4883013; 478329, 4883031; 478335, 4883047; 478339, 4883067; 478349, 4883088; 478361, 4883104; 478367, 4883118; 478379, 4883126; 478392, 4883133; 478403, 4883134; 478406, 4883134; 478415, 4883127; 478417, 4883117;

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(ii) Unit 10B (FBB–10B): 480173, 4882467; 480173, 4882393; 480173, 4882308; 480170, 4882236; 480168, 4882173; 480168, 4882165; 480169, 4882164; 480176, 4882152; 480191, 4882150; 480226, 4882147; 480247, 4882138; 480243, 4882127; 480236, 4882109; 480232, 4882089; 480224, 4882064; 480207, 4882058; 480209, 4882042; 480209, 4882024; 480185, 4882016; 480170, 4882007; 480169, 4881966; 480191, 4881931; 480206, 4881898; 480213, 4881847; 480219, 4881787; 480246, 4881569; 480248, 4881544; 480247, 4881536; 480247, 4881524; 480239, 4881512; 480240, 4881489; 480243, 4881474; 480247, 4881442; 480243, 4881433; 480239, 4881415; 480224, 4881399; 480215, 4881399; 480210, 4881384; 480221, 4881370; 480230, 4881360; 480254, 4881347; 480271, 4881331; 480283, 4881333; 480297, 4881333; 480325, 4881335; 480338, 4881336; 480361, 4881332; 480375, 4881331; 480386, 4881325; 480394, 4881312; 480398, 4881279; 480398, 4881082; 480400, 4881032; 480399, 4881003; 480394, 4880995; 480394, 4880984; 480394, 4880984; 480360, 4880954; 480360, 4880954; 480350, 4880954; 480332, 4880958; 480316, 4880964; 480294, 4880970; 480284, 4880970; 480274, 4880966; 480261, 4880960; 480239, 4880962; 480213, 4880960; 480201, 4880950; 480179, 4880950; 480159, 4880950; 480130, 4880950; 480094, 4880944; 480080, 4880952; 480058, 4880954; 480052, 4880938; 480052, 4880920; 480044, 4880914; 480024, 4880912; 480026, 4880895; 480020, 4880883; 479997, 4880879; 479975, 4880873; 479961, 4880863; 479935, 4880849; 479917, 4880847; 479903, 4880841; 479883, 4880837; 479874, 4880825; 479874, 4880813; 479866, 4880803; 479848, 4880797; 479844, 4880779; 479848, 4880756; 479870, 4880738; 479868, 4880724; 479856, 4880702; 479872, 4880690; 479870, 4880674; 479856, 4880668; 479862, 4880650; 479876, 4880631; 479891, 4880621; 479901, 4880615; 479909, 4880597; 479919, 4880577; 479923, 4880559; 479927, 4880535; 479925, 4880523; 479939, 4880500; 479941, 4880484; 479939, 4880468; 479945, 4880456; 479947, 4880442; 479943, 4880426; 479949, 4880410; 479965, 4880400; 479975, 4880396; 479981, 4880373; 479987, 4880361; 479999, 4880357; 479999, 4880343; 480005, 4880319; 480005, 4880305; 480016, 4880283; 480034, 4880263; 480048, 4880265; 480054, 4880273; 480068, 4880265;

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480118, 4880321; 480118, 4880339; 480124, 4880359; 480134, 4880388; 480141, 4880400; 480149, 4880412; 480163, 4880418; 480173, 4880428; 480177, 4880432; 480189, 4880432; 480221, 4880422; 480245, 4880424; 480261, 4880422; 480280, 4880422; 480322, 4880426; 480344, 4880432; 480378, 4880438; 480391, 4880442; 480417, 4880444; 480411, 4880428; 480405, 4880398; 480401, 4880371; 480401, 4880353; 480389, 4880333; 480384, 4880311; 480374, 4880265; 480366, 4880238; 480364, 4880208; 480362, 4880184; 480358, 4880156; 480354, 4880113; 480336, 4880109; 480300, 4880109; 480259, 4880113; 480179, 4880115; 480116, 4880115; 480076, 4880115; 480044, 4880117; 480044, 4880142; 480044, 4880166; 480042, 4880194; 480034, 4880192; 480020, 4880196; 480010, 4880198; 479997, 4880190; 480001, 4880168; 480001, 4880154; 479983, 4880156; 479969, 4880158; 479957, 4880142; 479971, 4880133; 479983, 4880117; 479977, 4880109; 479989, 4880085; 479993, 4880067; 479987, 4879964; 479602, 4879960; 479606, 4879744; 479592, 4879738; 479586, 4879724; 479584, 4879525; 479544, 4879525; 479500, 4879523; 479304, 4879519; 479272, 4879527; 479243, 4879535; 479235, 4879557; 479245, 4879589; 479256, 4879623; 479268, 4879654; 479288, 4879680; 479298, 4879694; 479298, 4879732; 479278, 4879744; 479233, 4879746; 479215, 4879750; 479195, 4879753; 479193, 4879761; 479195, 4879779; 479201, 4879811; 479199, 4879831; 479199, 4879859; 479217, 4879861; 479245, 4879835; 479270, 4879829; 479300, 4879867; 479308, 4879902; 479298, 4879930; 479284, 4879974; 479290, 4880025; 479300, 4880065; 479320, 4880095; 479328, 4880119; 479350, 4880134; 479360, 4880148; 479370, 4880180; 479377, 4880210; 479385, 4880252; 479385, 4880303; 479383, 4880341; 479395, 4880367; 479397, 4880392; 479403, 4880406; 479415, 4880432; 479415, 4880450; 479411, 4880468; 479423, 4880474; 479439, 4880484; 479447, 4880494; 479459, 4880498; 479477, 4880496; 479495, 4880502; 479493, 4880519; 479485, 4880541; 479491, 4880551; 479500, 4880557; 479518, 4880571; 479520, 4880567; 479526, 4880551; 479542, 4880527; 479552, 4880537; 479576, 4880547; 479582, 4880539; 479600, 4880527; 479620, 4880517; 479637, 4880517; 479665, 4880529; 479683, 4880543; 479665, 4880587; 479635, 4880623; 479588, 4880672; 479540, 4880744; 479524, 4880785; 479516, 4880801; 479510, 4880811; 479506, 4880829; 479518, 4880831; 479546, 4880825; 479584, 4880813; 479610, 4880803; 479639, 4880807; 479679, 4880823; 479713, 4880857; 479721, 4880879; 479739, 4880910; 479753, 4880942; 479766, 4880956; 479782, 4880970; 479800, 4880986; 479822, 4881000; 479840, 4881025; 479880, 4881069; 479899, 4881093; 479915, 4881115; 479935, 4881133; 479951, 4881137; 479979, 4881139; 480012, 4881133; 480048, 4881150; 480062, 4881170; 480110, 4881234; 480108, 4881248; 480098, 4881272; 480084, 4881289; 480058, 4881325; 480040, 4881351; 480020, 4881375; 479987, 4881406; 479983, 4881410; 479953, 4881450; 479941, 4881484; 479937, 4881518; 479937, 4881551; 479947, 4881567; 479953, 4881589; 479963, 4881607; 479981, 4881623; 480012, 4881647; 480042, 4881666; 480052, 4881666; 480082, 4881662; 480102, 4881658; 480134, 4881664; 480155, 4881678; 480161, 4881700; 480163, 4881722; 480163, 4881748; 480159, 4881776; 480159, 4881793; 480149, 4881807; 480145, 4881817; 480135, 4881825; 480122, 4881829; 480110, 4881825; 480068, 4881829; 480046, 4881825; 480028, 4881825; 479989, 4881845; 479965, 4881863; 479941, 4881889; 479923, 4881924; 479921, 4881954; 479921, 4881978;

479929, 4882000; 479947, 4882020; 479959, 4882028; 479981, 4882043; 479995, 4882057; 480014, 4882067; 480003, 4882089; 479997, 4882111; 479997, 4882135; 479993, 4882155; 479981, 4882180; 479980, 4882187; 479981, 4882188; 479978, 4882213; 479980, 4882240; 479978, 4882272; 479976, 4882288; 479968, 4882318; 479954, 4882344; 479944, 4882371; 479942, 4882401; 479946, 4882431; 479954, 4882449; 479962, 4882455; 479980, 4882461; 479990, 4882465; 479999, 4882463; 480017, 4882459; 480037, 4882473; 480047, 4882494; 480063, 4882502; 480077, 4882508; 480109, 4882512; 480134, 4882518; 480158, 4882532; 480171, 4882532; 480171, 4882524; 480172, 4882501; 480173, 4882467.

(iii) Unit 10C (FBB–10C): 481378, 4880648; 481378, 4880649; 481379, 4880651; 481380, 4880651; 481386, 4880656; 481391, 4880657; 481396, 4880658; 481398, 4880658; 481400, 4880657; 481401, 4880674; 481426, 4880675; 481437, 4880674; 481437, 4880675; 481438, 4880675; 481438, 4880675; 481443, 4880679; 481448, 4880686; 481454, 4880692; 481461, 4880697; 481466, 4880702; 481473, 4880709; 481478, 4880715; 481481, 4880724; 481484, 4880732; 481485, 4880737; 481486, 4880744; 481487, 4880751; 481488, 4880756; 481488, 4880762; 481488, 4880768; 481485, 4880774; 481482, 4880779; 481480, 4880786; 481478, 4880790; 481477, 4880795; 481475, 4880803; 481474, 4880808; 481473, 4880813; 481473, 4880820; 481467, 4880823; 481460, 4880829; 481455, 4880836; 481454, 4880844; 481455, 4880854; 481460, 4880864; 481464, 4880872; 481468, 4880877; 481472, 4880882; 481476, 4880886; 481481, 4880892; 481489, 4880897; 481495, 4880902; 481502, 4880908; 481511, 4880912; 481515, 4880917; 481521, 4880920; 481529, 4880923; 481535, 4880925; 481542, 4880927; 481545, 4880928; 481567, 4880927; 481580, 4880925; 481590, 4880922; 481597, 4880918; 481602, 4880914; 481602, 4880914; 481602, 4880913; 481609, 4880913; 481612, 4880913; 481615, 4880820; 481611, 4880820; 481611, 4880816; 481612, 4880815; 481616, 4880815; 481616, 4880806; 481617, 4880802; 481620, 4880797; 481622, 4880794; 481622, 4880793; 481623, 4880790; 481623, 4880789; 481624, 4880788; 481624, 4880786; 481816, 4880785; 481814, 4880923; 481900, 4880926; 481912, 4880916; 481942, 4880882; 481988, 4880820; 481991, 4880727; 481800, 4880618; 481741, 4880607; 481669, 4880604; 481667, 4880569; 481686, 4880525; 481718, 4880494; 481780, 4880511; 481849, 4880560; 481913, 4880614; 481964, 4880648; 482025, 4880685; 482062, 4880698; 482079, 4880687; 482089, 4880665; 482099, 4880579; 482082, 4880547; 481998, 4880506; 481925, 4880469; 481809, 4880408; 481760, 4880370; 481645, 4880354; 481620, 4880380; 481618, 4880513; 481600, 4880528; 481599, 4880529; 481598, 4880529; 481594, 4880529; 481589, 4880526; 481587, 4880525; 481577, 4880525; 481572, 4880525; 481568, 4880525; 481563, 4880525; 481559, 4880525; 481557, 4880525; 481553, 4880523; 481551, 4880523; 481541, 4880523; 481540, 4880523; 481540, 4880523; 481532, 4880524; 481525, 4880523; 481509, 4880519; 481496, 4880519; 481494, 4880520; 481483, 4880523; 481470, 4880525; 481470, 4880525; 481470, 4880525; 481469, 4880525; 481454, 4880526; 481448, 4880527; 481431, 4880531; 481409, 4880530; 481409, 4880530; 481405, 4880530; 481420, 4880517; 481445, 4880474; 481453, 4880443; 481451, 4880421; 481452, 4880420; 481444, 4880418; 481428, 4880427; 481400, 4880494; 481379, 4880554; 481368, 4880626; 481373, 4880640; 481374, 4880634; 481375, 4880644; 481377, 4880648; 481378, 4880648.

(iv) Unit 10D (FBB–10D): 482330, 4880170; 482330, 4880242; 482338, 4880299; 482384, 4880330; 482415, 4880349; 482472, 4880382; 482531, 4880408; 482566, 4880419; 482601, 4880426; 482638, 4880434; 482700, 4880436; 482751, 4880435; 482832, 4880421; 482837, 4880436; 482842, 4880441; 482846, 4880456; 482865, 4880463; 482890, 4880456; 482946, 4880435; 482951, 4880427; 482973, 4880408; 483000, 4880395; 483014, 4880387; 483040, 4880372; 483075, 4880346; 483131, 4880295; 483137, 4880272; 483125, 4880251; 483125, 4880250; 483083, 4880204; 483082, 4880205; 483069, 4880202; 483048, 4880205; 483015, 4880205; 482992, 4880209; 482984, 4880207; 482955, 4880210; 482933, 4880217; 482866, 4880211; 482836, 4880163; 482839, 4880141; 482828, 4880125; 482816, 4880120; 482804, 4880120; 482788, 4880127; 482759, 4880130; 482736, 4880121; 482713, 4880119; 482649, 4880141; 482601, 4880164; 482567, 4880154; 482546, 4880160; 482532, 4880142; 482511, 4880124; 482489, 4880130; 482457, 4880119; 482423, 4880123; 482330, 4880170.

(v) Unit 10E (FBB–10E): 483301, 4880015; 483334, 4880057; 483333, 4880306; 483332, 4880510; 483360, 4880508; 483386, 4880503; 483421, 4880492; 483444, 4880480; 483486, 4880443; 483541, 4880386; 483561, 4880361; 483631, 4880258; 483671, 4880200; 483683, 4880171; 483736, 4880004; 483767, 4879924; 483848, 4879754; 483860, 4879739; 483868, 4879724; 483868, 4879708; 483853, 4879707; 483824, 4879707; 483765, 4879712; 483763, 4879718; 483751, 4879724; 483751, 4879729; 483748, 4879746; 483706, 4879749; 483693, 4879751; 483681, 4879754; 483652, 4879767; 483614, 4879787; 483545, 4879797; 483306, 4879918; 483301, 4880015.

(vi) Unit 11A (FBB–11A): 482634, 4879216; 482560, 4879196; 482528, 4879254; 482470, 4879358; 482492, 4879432; 482573, 4879516; 482592, 4879600; 482486, 4879609; 482475, 4879701; 482527, 4879700; 482613, 4879696; 482655, 4879694; 482634, 4879216.

(vii) Unit 11B (FBB–11B): 482130, 4878873; 482101, 4878734; 481898, 4878780; 481827, 4878721; 481792, 4878680; 481750, 4878676; 481734, 4878689; 481740, 4878776; 481743, 4878847; 481771, 4878922; 481791, 4878918; 481901, 4878886; 482130, 4878873.

(viii) Unit 11C (FBB–11C): 482637, 4878489; 482654, 4878466; 482492, 4878476; 482492, 4878521; 482544, 4878709; 482595, 4878851; 482687, 4878901; 482911, 4878899; 482883, 4878825; 482792, 4878741; 482744, 4878644; 482654, 4878599; 482625, 4878583; 482637, 4878489.

(ix) Unit 11D (FBB–11D): 483917, 4879166; 483911, 4879133; 483895, 4879125; 483841, 4879126; 483792, 4879136; 483800, 4879102; 483835, 4879061; 483920, 4879021; 483949, 4879004; 483975, 4878976; 483992, 4878953; 484027, 4878883; 484048, 4878870; 484059, 4878815; 484017, 4878833; 483914, 4878874; 483812, 4878917; 483725, 4878961; 483698, 4878999; 483674, 4879071; 483668, 4879377; 483703, 4879390; 483754, 4879404; 483789, 4879412; 483849, 4879401; 483906, 4879358; 483920, 4879301; 483923, 4879247; 483917, 4879166.

(x) Unit 11E (FBB–11E): 484274, 4879053; 484439, 4878986; 484226, 4878988; 484195, 4878996; 484183, 4879004; 484183, 4879189; 484193, 4879197; 484201, 4879199; 484220, 4879148; 484239, 4879099; 484253, 4879070; 484274, 4879053.

(xi) Unit 11F (FBB–11F): 484856, 4878596; 484906, 4878565; 484909, 4878412; 485192, 4878416; 485247, 4878417; 485269, 4878317; 485038, 4878264; 484819, 4878269; 484774, 4878240; 484777, 4878237; 484743, 4878234; 484735, 4878256; 484736, 4878340; 484731, 4878360; 484711, 4878440; 484690, 4878493; 484646, 4878531; 484613, 4878561; 484639, 4878590; 484639, 4878590; 484856, 4878596.

(xii) Unit 11G (FBB–11G): 484890, 4877956; 484890, 4877986; 484893, 4878018; 484903, 4878058; 484911, 4878082; 484908, 4878084; 484943, 4878095; 484981, 4878028; 484993, 4877966; 484998, 4877917; 485005, 4877890; 485003, 4877867; 484981, 4877858; 484981, 4877861; 484960, 4877869; 484936, 4877878; 484916, 4877898; 484897, 4877925; 484890, 4877956.

(xiii) Unit 11H (FBB–11H): 485260, 4877580; 485260, 4877580; 485263, 4878059; 485381, 4878067; 485486, 4878059; 485530, 4878059; 485578, 4878058; 485595, 4878021; 485594, 4877901; 485597, 4877851; 485598, 4877813; 485589, 4877780; 485587, 4877759; 485587, 4877759; 485586, 4877757; 485592, 4877706; 485592, 4877705; 485589, 4877570; 485589, 4877512; 485616, 4877499; 485716, 4877494; 485714, 4877466; 485719, 4877374; 485716, 4877332; 485700, 4877320; 485605, 4877329; 485547, 4877340; 485479, 4877364; 485432, 4877390; 485340, 4877458; 485304, 4877484; 485260, 4877580.

(xiv) Unit 11I (FBB–11I): 486042, 4877818; 486064, 4877815; 486085, 4877816; 486097, 4877812; 486099, 4877812; 486110, 4877794; 486111, 4877786; 486113, 4877755; 486112, 4877751; 486111, 4877741; 486112, 4877740; 486112, 4877736; 486112, 4877735; 486110, 4877734; 486110, 4877734; 486107, 4877713; 486106, 4877708; 486106, 4877708; 486106, 4877708; 486067, 4877628; 486041, 4877605; 486036, 4877586; 486033, 4877528; 486241, 4877142; 486263, 4877100; 486261, 4876700; 486057, 4876700; 485991, 4876758; 485978, 4876930; 485986, 4877216; 485986, 4877222; 485981, 4877497; 485981, 4877647; 485977, 4877652; 485975, 4877692; 485976, 4877692; 485976, 4877703; 485977, 4877703; 485976, 4877703; 485977, 4877712; 485983, 4877780; 485984, 4877781; 485987, 4877791; 485988, 4877795; 485996, 4877809; 485999, 4877814; 486024, 4877817; 486038, 4877818; 486042, 4877818.

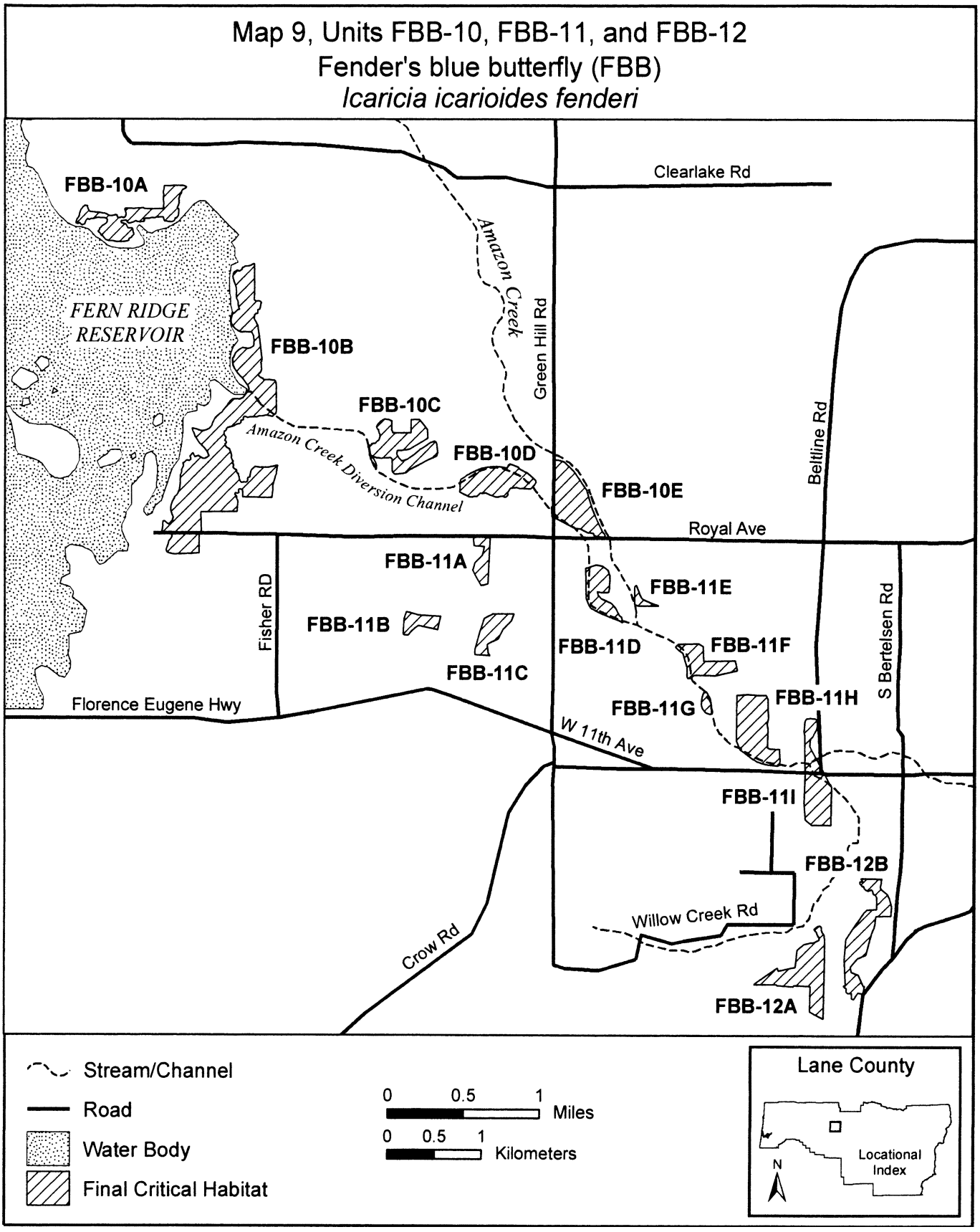
(xv) Unit 12A (FBB–12A): 486197, 4875513; 486200, 4875474; 486201, 4875316; 486185, 4874677; 486042, 4874749; 486046, 4875014; 485875, 4875023; 485874, 4875012; 485698, 4875023; 485695, 4875035; 485450, 4875035; 485608, 4875144; 485702, 4875208; 485712, 4875178; 485862, 4875211; 485889, 4875218; 485910, 4875396; 485986, 4875456; 486062, 4875471; 486072, 4875472; 486086, 4875473; 486088, 4875478; 486096, 4875476; 486143, 4875502; 486141, 4875516; 486141, 4875526; 486138, 4875537; 486132, 4875540; 486115, 4875576; 486116, 4875585; 486113, 4875587; 486113, 4875591; 486100, 4875599; 486094, 4875607; 486092, 4875611; 486092, 4875616; 486105, 4875626; 486123, 4875643; 486143, 4875649; 486156, 4875646; 486159, 4875643; 486163, 4875634; 486164, 4875624; 486166, 4875609; 486169, 4875599; 486174, 4875586; 486190, 4875560; 486193, 4875549; 486195, 4875534; 486197, 4875513.

(xvi) Unit 12B (FBB–12B): 486793, 4876121; 486790, 4876107; 486783, 4876064; 486783, 4876051; 486790, 4876034; 486805, 4876021; 486842, 4875993; 486855, 4875977; 486860, 4875962; 486869, 4875946; 486883, 4875908; 486893, 4875878; 486895, 4875857; 486896, 4875826; 486892, 4875791; 486893, 4875754; 486886, 4875756; 486738, 4875751; 486734, 4875744; 486731, 4875711; 486725, 4875665; 486720, 4875629; 486693, 4875573; 486629, 4875348; 486549, 4875312; 486469, 4875220; 486477, 4875168; 486553, 4875136; 486603, 4875021; 486608, 4875021; 486616, 4875020; 486601, 4874935; 486577, 4874945; 486546, 4874949; 486542, 4874941; 486522, 4874907; 486507,

4874882; 486482, 4874888; 486482, 4874900; 486481, 4874944; 486439, 4874947; 486424, 4874957; 486426, 4874980; 486427, 4875000; 486409, 4875006; 486398, 4875018; 486401, 4875024; 486416, 4875027; 486422, 4875028; 486417, 4875033; 486405, 4875292; 486421, 4875508; 486517, 4875652; 486614, 4875792; 486640, 4875821; 486742, 4875825; 486742, 4875951; 486725, 4875983; 486714, 4875983; 486709, 4875984; 486702, 4875993; 486694, 4876021; 486685, 4876033; 486684, 4876035; 486680, 4876031; 486676, 4876028; 486672, 4876025; 486660, 4876020; 486657, 4876018; 486652, 4876018; 486639, 4876025; 486629, 4876029; 486620, 4876034; 486614, 4876044; 486613, 4876052; 486610, 4876058; 486605, 4876068; 486594, 4876067; 486589, 4876066; 486585, 4876068; 486581, 4876078; 486576, 4876086; 486568, 4876093; 486565, 4876102; 486563, 4876110; 486565, 4876115; 486573, 4876118; 486577, 4876118; 486583, 4876115; 486588, 4876113; 486592, 4876119; 486590, 4876128; 486585, 4876137; 486580, 4876144; 486579, 4876147; 486795, 4876145; 486793, 4876121.

(xvii) Note: Map 9 (Units 10, 11, and 12 for Fender's blue butterfly (FBB–10, FBB–11, and FBB–12)) follows:

BILLING CODE 4310–55–P



BILLING CODE 4310–55–C

(14) Unit 13 for Fender's blue butterfly, Lane County, Oregon.

(i) Unit 13 (FBB–13) exterior unit perimeter: 500237, 4885879; 500247, 4885878; 500251, 4885881; 500259, 4885886; 500266, 4885881; 500274, 4885878; 500281, 4885875; 500294, 4885870; 500305, 4885867; 500309, 4885860; 500312, 4885856; 500326, 4885855; 500374, 4885871; 500388, 4885861; 500407, 4885873; 500445, 4885876; 500494, 4885861; 500516, 4885835; 500529, 4885775; 500516, 4885744; 500461, 4885670; 500397, 4885621; 500340, 4885608; 500322, 4885619; 500317, 4885610; 500306, 4885597; 500302, 4885585; 500297, 4885572; 500297, 4885553; 500301, 4885537; 500309, 4885525; 500306, 4885510; 500301, 4885500; 500291, 4885484; 500282, 4885466; 500266, 4885451; 500242, 4885409; 500227, 4885390; 500207, 4885373; 500198, 4885360; 500187, 4885333; 500176, 4885307; 500174, 4885290; 500176, 4885279; 500179, 4885270; 500184, 4885259; 500181, 4885253; 500171, 4885244; 500164, 4885234; 500162, 4885226; 500162, 4885217; 500163, 4885206; 500168, 4885202; 500171, 4885197; 500161, 4885192; 500160, 4885180; 500160, 4885169; 500164, 4885163; 500178, 4885155; 500184, 4885150; 500190, 4885148; 500193, 4885151; 500199, 4885162; 500206, 4885173; 500217, 4885177; 500212, 4885166; 500206, 4885154; 500201, 4885146; 500209, 4885142; 500215, 4885144; 500229, 4885144; 500239, 4885146; 500251, 4885152; 500259, 4885155; 500279, 4885163; 500292, 4885172; 500302, 4885178; 500314, 4885187; 500324, 4885196; 500329, 4885199; 500344, 4885203; 500352, 4885207; 500361, 4885212; 500371, 4885215; 500400, 4885229; 500421, 4885235; 500427, 4885243; 500433, 4885255; 500437, 4885268; 500442, 4885275; 500444, 4885282; 500438, 4885286; 500423, 4885294; 500426, 4885302; 500437, 4885307; 500442, 4885305; 500454, 4885296; 500462, 4885297; 500459, 4885311; 500452, 4885318; 500449, 4885334; 500453, 4885342; 500462, 4885352; 500467, 4885363; 500477, 4885365; 500477, 4885376; 500485, 4885383; 500494, 4885390; 500505, 4885393; 500521, 4885400; 500529, 4885408; 500534, 4885416; 500542, 4885422; 500554, 4885423; 500562, 4885416; 500568, 4885412; 500579, 4885407; 500592, 4885409; 500597, 4885417; 500596, 4885428; 500602, 4885436; 500609, 4885439; 500622, 4885444; 500634, 4885443; 500654, 4885440; 500673, 4885439; 500687, 4885436; 500694, 4885427; 500687, 4885407; 500670, 4885388; 500647, 4885390; 500636, 4885394; 500621, 4885391; 500602, 4885373; 500581, 4885365; 500549, 4885361; 500531, 4885360; 500527, 4885349; 500530, 4885339; 500519, 4885340; 500508, 4885335; 500504, 4885327; 500497, 4885330; 500491, 4885326; 500494, 4885317; 500489, 4885309; 500489, 4885296; 500502, 4885288; 500514, 4885289; 500537, 4885295; 500546, 4885294; 500558, 4885292; 500561, 4885282; 500554, 4885275; 500544, 4885277; 500529, 4885277; 500519, 4885272; 500513, 4885265; 500501, 4885271; 500485, 4885274; 500476, 4885264; 500468, 4885243; 500460, 4885232; 500457, 4885210; 500452, 4885199; 500457, 4885188; 500479, 4885175; 500486, 4885169; 500499, 4885169; 500506, 4885155; 500517, 4885152; 500513, 4885142; 500508, 4885129; 500512, 4885117; 500511, 4885095; 500505, 4885083; 500514, 4885068; 500512, 4885060; 500511, 4885048; 500513, 4885042; 500520, 4885030; 500524, 4885026; 500541, 4885018; 500541, 4885011; 500552, 4884997; 500547, 4884989; 500532, 4884994; 500523, 4884995; 500515, 4884995; 500507, 4884986; 500501, 4884974; 500500, 4884957; 500498, 4884940; 500500, 4884924; 500506, 4884903; 500512, 4884889; 500526, 4884882; 500538, 4884872; 500560, 4884867; 500558, 4884857;

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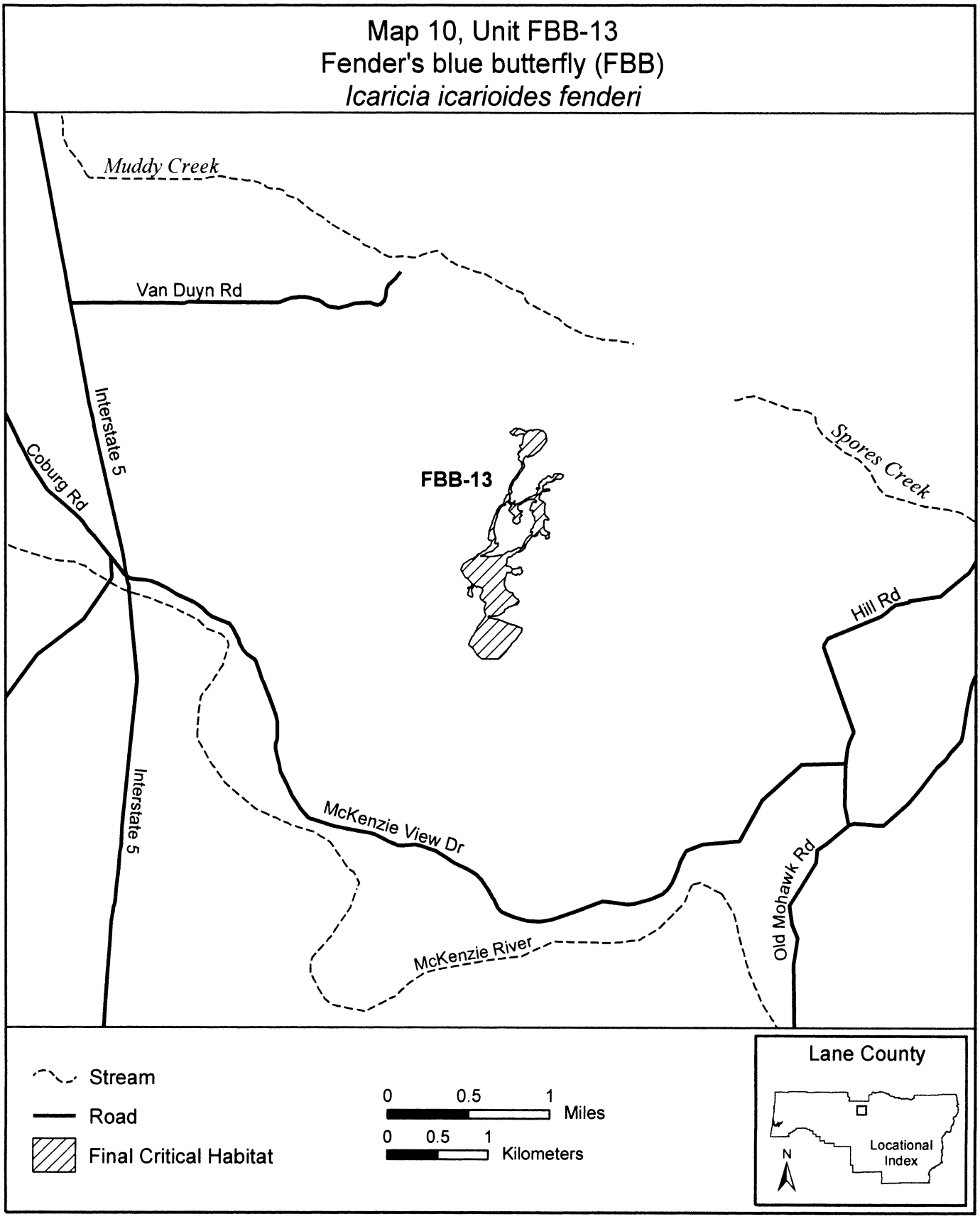
(ii) Unit 13 (FBB–13) interior unit perimeter 500014, 4884757; 500024, 4884754; 500039, 4884757; 500047, 4884762; 500047, 4884748; 500048, 4884731; 500033, 4884719; 500019, 4884709; 500009, 4884696; 499994, 4884686; 499975, 4884679; 499963, 4884672; 499939, 4884665; 499927, 4884656; 499908, 4884648; 499899, 4884644; 499883, 4884641; 499869, 4884634; 499896, 4884633; 499920, 4884633; 499959, 4884630; 500010, 4884633; 500077, 4884643; 500098, 4884643; 500132, 4884671; 500152, 4884680; 500169, 4884677; 500211, 4884696; 500232, 4884707; 500254, 4884720; 500271, 4884714; 500280, 4884715; 500316, 4884780; 500328, 4884808; 500349, 4884827; 500374, 4884844; 500382, 4884855; 500387, 4884875; 500373, 4884873; 500367, 4884862; 500367, 4884883; 500374, 4884899; 500389, 4884907; 500401, 4884915; 500393, 4884922; 500399, 4884934; 500404, 4884947; 500414, 4884955; 500421, 4884967; 500414, 4884984; 500407, 4884992; 500412, 4885011; 500406, 4885026; 500392, 4885038; 500386, 4885045; 500381, 4885060; 500391, 4885076; 500386, 4885085; 500372, 4885080; 500364, 4885083; 500362, 4885099; 500372, 4885114; 500377, 4885133; 500385, 4885158; 500391, 4885166; 500404, 4885165; 500424, 4885161; 500427, 4885174; 500422, 4885182; 500387, 4885191; 500364, 4885192; 500348, 4885190; 500333, 4885182; 500317, 4885172; 500297, 4885161; 500275, 4885150; 500261, 4885142; 500246, 4885127; 500242, 4885106; 500246, 4885090; 500260, 4885076; 500272, 4885079; 500283, 4885078; 500283, 4885068; 500272, 4885060; 500268, 4885047; 500277, 4885039; 500286, 4885038; 500275, 4885024; 500260, 4885012; 500260, 4885001; 500265, 4884987; 500264, 4884970; 500252, 4884959; 500242, 4884954; 500226, 4884951; 500208, 4884958; 500198, 4884965; 500191, 4884981; 500194, 4884996; 500202, 4885011; 500212, 4885020; 500209, 4885034; 500193, 4885043; 500186, 4885049; 500179, 4885057; 500161, 4885069; 500154, 4885086; 500166, 4885113; 500182, 4885123; 500171, 4885137; 500162, 4885147; 500149, 4885157; 500137, 4885168; 500128, 4885163; 500119, 4885147; 500121, 4885136; 500101, 4885127; 500085, 4885118; 500077, 4885110; 500070, 4885099; 500062, 4885087; 500055, 4885072; 500041, 4885045; 500034, 4885017; 500029, 4884996; 500025, 4884978; 500016, 4884959; 500011, 4884937; 500011, 4884921; 500004, 4884891; 500006, 4884875; 500006, 4884860; 500014, 4884840; 500020, 4884823; 500025, 4884806; 500021, 4884789; 500024, 4884780; 500014, 4884772; 500014, 4884757.

(iii) Note: Map 10 (Unit 13 for Fender's blue butterfly (FBB–13)) follows:

BILLING CODE 4310–55–P



BILLING CODE 4310–55–C

* * * * *

■ 5. In § 17.96(a), add entries for *Erigeron decumbens* var. *decumbens* (Willamette daisy) and *Lupinus sulphureus* ssp. *kincaidii* (Kincaid's lupine) in alphabetical order by family under Asteraceae and Fabaceae, respectively, to read as follows:

§ 17.96 Critical habitat—plants.

(a) *Flowering plants.*

* * * * *

Family Asteraceae: *Erigeron decumbens* var. *decumbens* (Willamette daisy).

(1) Critical habitat units are depicted for Benton, Lane, Linn, Marion, and Polk Counties, Oregon, on the maps below.

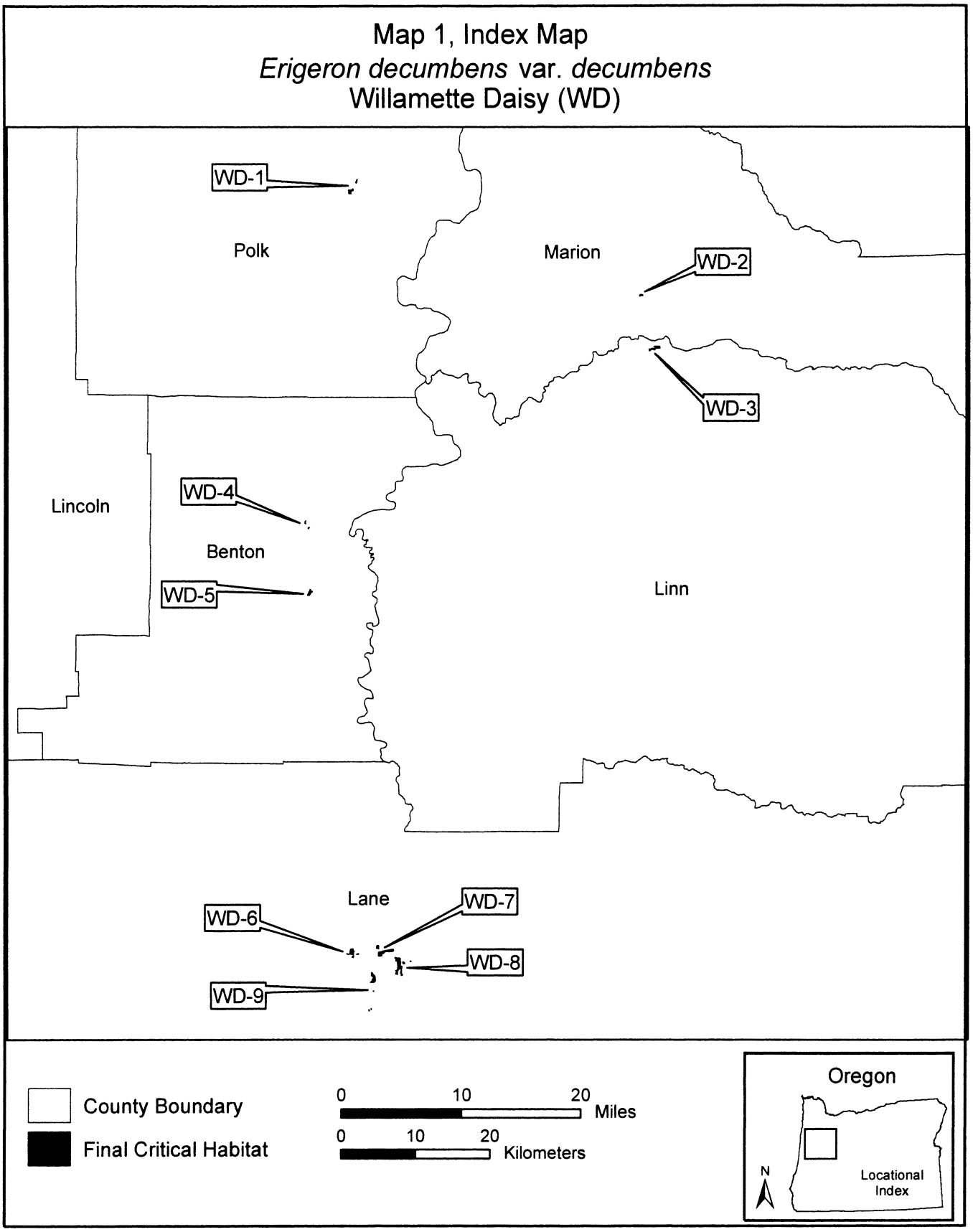
(2) The primary constituent elements of critical habitat for *Erigeron decumbens* var. *decumbens* are the habitat components that provide:

(i) Early seral upland prairie, wet prairie, or oak savanna habitat with a mosaic of low-growing grasses and forbs, and spaces to establish seedlings or new vegetative growth; an absence of dense canopy vegetation; and undisturbed subsoils.

(3) Critical habitat does not include man-made structures (such as buildings, aqueducts, airports, roads, and other paved areas, and the land on which such structures are located) existing on the effective date of this rule and not containing one or more of the primary constituent elements.

(4) *Critical habitat map units.* Critical habitat units are described below. Data layers defining map units were created using USGS 24,000 scale Digital Ortho Quads captured in 2000. Critical habitat units were then mapped using UTM zone 10, NAD 1983 coordinates.

(5) Note: Map 1 (Index map for *Erigeron decumbens* var. *decumbens*) follows:

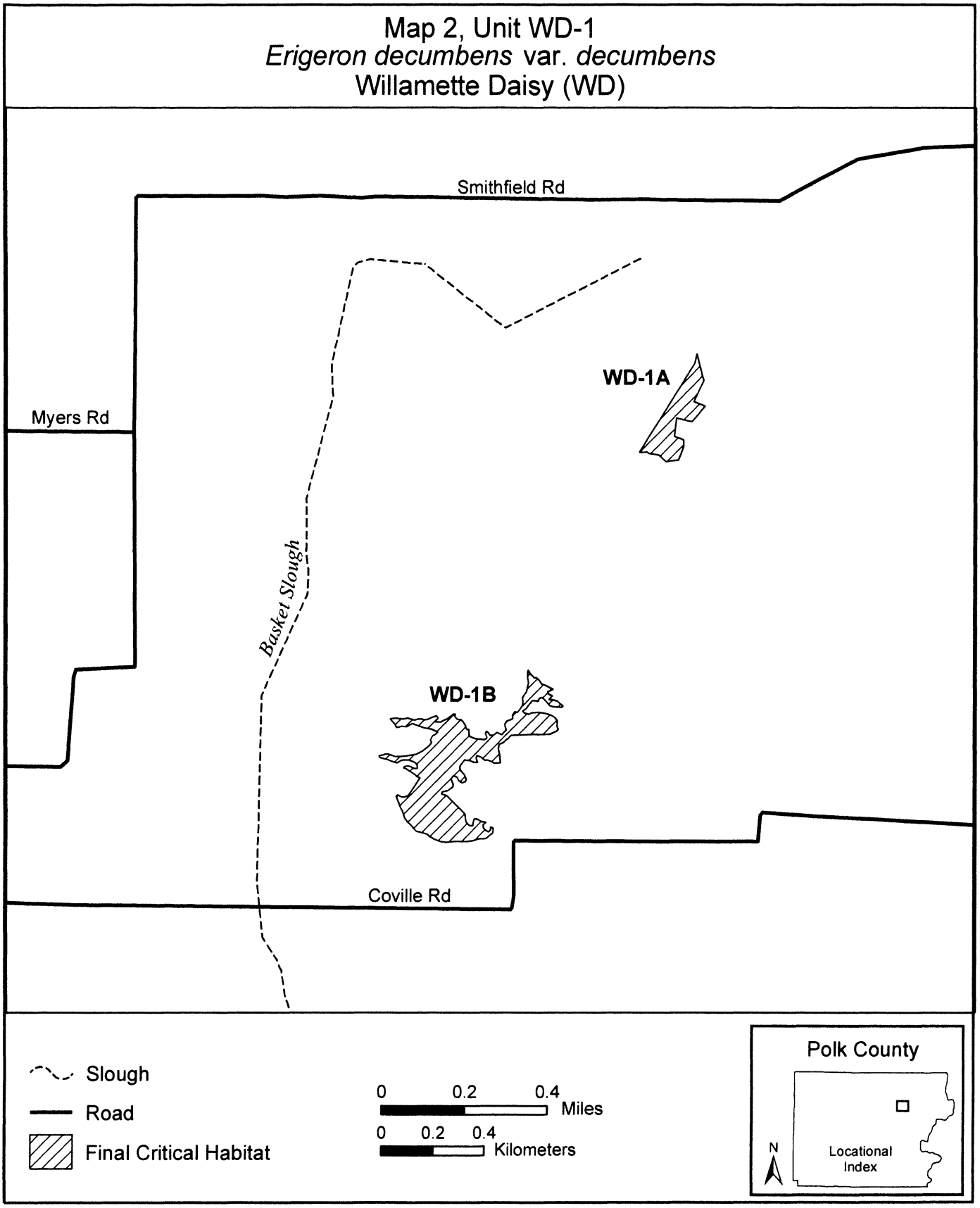

Map 1, Index Map
Erigeron decumbens var. decumbens
Willamette Daisy (WD)
WD-1
Polk
Marion
WD-2
WD-3
Lincoln
WD-4
Benton
WD-5
Linn
Lane
WD-6
WD-7
WD-8
WD-9
County Boundary
Final Critical Habitat
0 10 20 Miles
0 10 20 Kilometers
Oregon
N
Locational Index

(6) Unit 1 for *Erigeron decumbens* var. *decumbens* (WD–1), Polk County, Oregon.

(i) Unit 1A (WD–1A): 480424, 4980390; 480372, 4980330; 480312, 4980343; 480304, 4980273; 480339, 4980261; 480339, 4980235; 480319, 4980183; 480271, 4980178; 480242, 4980204; 480206, 4980208; 480198, 4980215; 480170, 4980213; 480383, 4980550; 480393, 4980586; 480417, 4980484; 480379, 4980405; 480424, 4980390.

(ii) Unit 1B (WD–1B): 479757, 4979367; 479765, 4979358; 479775, 4979358; 479788, 4979347; 479796, 4979335; 479809, 4979329; 479830, 4979318; 479840, 4979313; 479817, 4979304; 479821, 4979295; 479838, 4979287; 479823, 4979273; 479839, 4979273; 479854, 4979268; 479870, 4979256; 479878, 4979250; 479874, 4979244; 479841, 4979247; 479829, 4979250; 479823, 4979256; 479808, 4979274; 479797, 4979282; 479786, 4979280; 479782, 4979267; 479773, 4979270; 479761, 4979270; 479751, 4979259; 479744, 4979249; 479737, 4979239; 479723, 4979230; 479727, 4979224; 479746, 4979218; 479758, 4979224; 479778, 4979226; 479790, 4979226; 479814, 4979222; 479826, 4979216; 479847, 4979205; 479857, 4979192; 479855, 4979172; 479859, 4979160; 479853, 4979153; 479827, 4979142; 479769, 4979141; 479708, 4979138; 479679, 4979136; 479673, 4979131; 479669, 4979125; 479658, 4979117; 479649, 4979110; 479632, 4979104; 479629, 4979085; 479634, 4979063; 479635, 4979041; 479637, 4979031; 479612, 4979030; 479602, 4979037; 479587, 4979043; 479577, 4979041; 479563, 4979053; 479545, 4979061; 479541, 4979049; 479547, 4979034; 479533, 4979034; 479518, 4979042; 479497, 4979043; 479486, 4979029; 479480, 4979021; 479478, 4979011; 479483, 4978999; 479496, 4978986; 479503, 4978968; 479500, 4978960; 479487, 4978955; 479476, 4978961; 479469, 4978975; 479453, 4978983; 479444, 4978970; 479453, 4978947; 479451, 4978937; 479434, 4978927; 479412, 4978921; 479408, 4978912; 479424, 4978908; 479430, 4978904; 479499, 4978836; 479500, 4978819; 479503, 4978804; 479509, 4978799; 479517, 4978791; 479530, 4978791; 479531, 4978803; 479534, 4978817; 479541, 4978817; 479549, 4978815; 479563, 4978808; 479581, 4978804; 479577, 4978801; 479569, 4978794; 479571, 4978782; 479583, 4978771; 479591, 4978767; 479599, 4978775; 479599, 4978786; 479608, 4978782; 479607, 4978764; 479597, 4978755; 479583, 4978744; 479571, 4978740; 479557, 4978741; 479547, 4978740; 479537, 4978736; 479531, 4978734; 479507, 4978732; 479481, 4978731; 479457, 4978731; 479425, 4978728; 479402, 4978732; 479385, 4978738; 479360, 4978751; 479354, 4978759; 479323, 4978769; 479313, 4978770; 479302, 4978778; 479292, 4978792; 479277, 4978804; 479266, 4978822; 479260, 4978834; 479255, 4978851; 479248, 4978865; 479239, 4978887; 479233, 4978904; 479239, 4978910; 479244, 4978907; 479255, 4978901; 479270, 4978903; 479280, 4978907; 479325, 4978974; 479314, 4978978; 479306, 4978985; 479283, 4978999; 479270, 4979009; 479260, 4979012; 479264, 4979017; 479274, 4979021; 479286, 4979017; 479299, 4979011; 479314, 4979010; 479314, 4979022; 479306, 4979031; 479297, 4979037; 479281, 4979043; 479263, 4979043; 479253, 4979041; 479237, 4979033; 479228, 4979034; 479209, 4979040; 479198, 4979044; 479184, 4979048; 479168, 4979053; 479167, 4979059; 479182, 4979062; 479188, 4979066; 479203, 4979065; 479228, 4979056; 479250, 4979056; 479277, 4979059; 479311, 4979065; 479337, 4979078; 479361, 4979097; 479369, 4979110; 479364, 4979119; 479373, 4979134; 479382, 4979140; 479393, 4979149; 479370, 4979161; 479341, 4979166; 479310, 4979176; 479295, 4979184; 479275, 4979171; 479254, 4979172; 479235, 4979167; 479229, 4979180; 479218, 4979190; 479209, 4979200; 479230, 4979204; 479243, 4979201; 479261, 4979200; 479277, 4979204; 479289, 4979200; 479304, 4979195; 479320, 4979200; 479331, 4979200; 479342, 4979195; 479356, 4979199; 479368, 4979205; 479389, 4979212; 479395, 4979203; 479381, 4979190; 479404, 4979188; 479427, 4979200; 479431, 4979203; 479443, 4979210; 479453, 4979218; 479462, 4979218; 479458, 4979211; 479467, 4979200; 479475, 4979198; 479482, 4979198; 479490, 4979191; 479499, 4979179; 479501, 4979169; 479506, 4979161; 479514, 4979160; 479515, 4979151; 479517, 4979134; 479531, 4979128; 479544, 4979124; 479574, 4979121; 479583, 4979125; 479584, 4979130; 479578, 4979144; 479582, 4979153; 479591, 4979146; 479597, 4979136; 479610, 4979137; 479624, 4979148; 479633, 4979143; 479643, 4979140; 479653, 4979151; 479659, 4979156; 479656, 4979168; 479654, 4979180; 479662, 4979192; 479673, 4979195; 479684, 4979201; 479683, 4979213; 479691, 4979228; 479702, 4979226; 479714, 4979238; 479721, 4979251; 479723, 4979260; 479722, 4979270; 479721, 4979281; 479728, 4979291; 479737, 4979301; 479740, 4979320; 479745, 4979336; 479741, 4979358; 479741, 4979377; 479744, 4979386; 479757, 4979367.

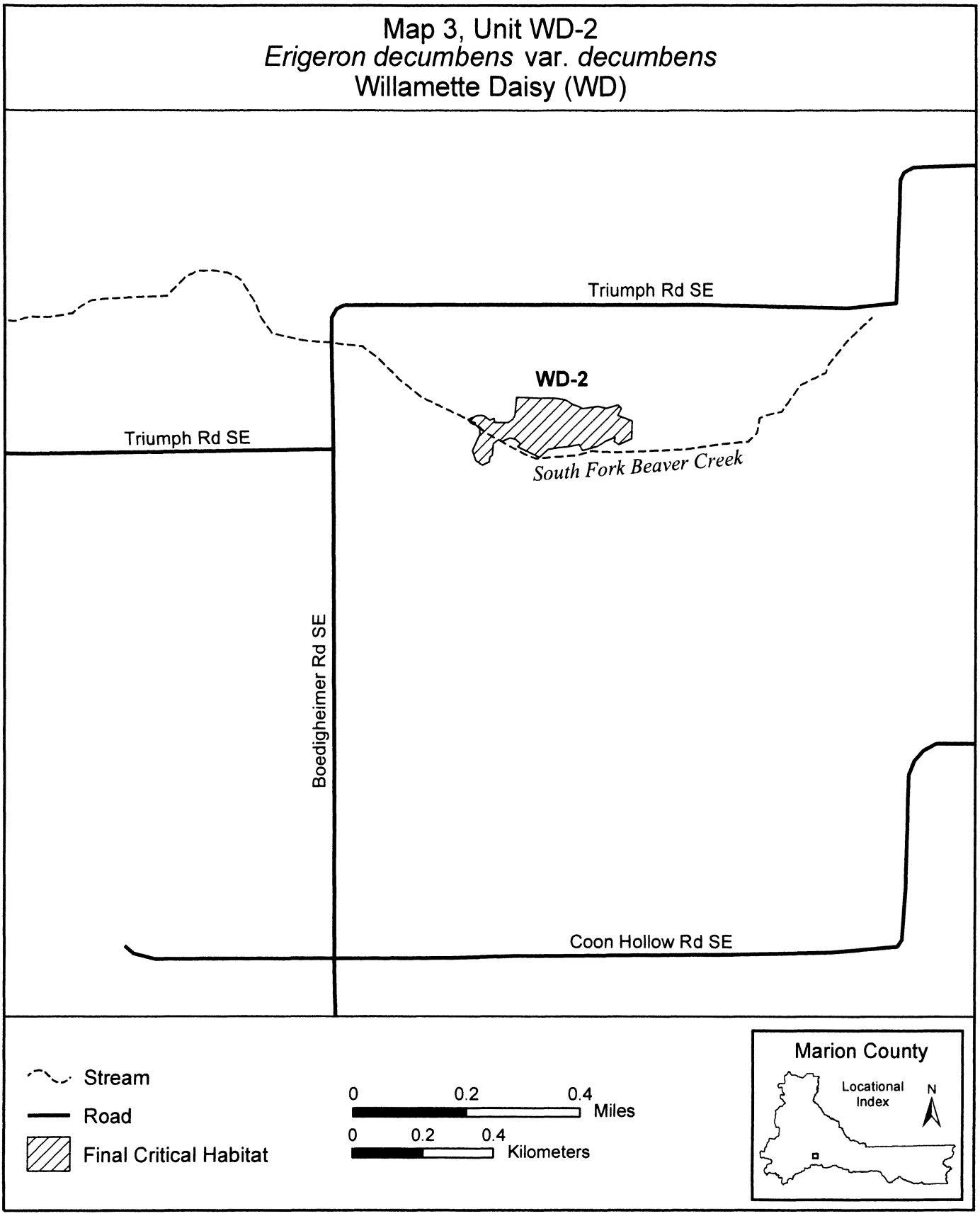
(iii) Note: Map 2 (Unit 1 for *Erigeron decumbens* var. *decumbens* (WD–1)) follows:


Map 2, Unit WD-1
Erigeron decumbens var. *decumbens*
Willamette Daisy (WD)
Smithfield Rd
Myers Rd
WD-1A
Basket Slough
WD-1B
Coville Rd
Slough
Road
Final Critical Habitat
0 0.2 0.4
Miles
0 0.2 0.4
Kilometers
Polk County
N
Locational Index

(7) Unit 2 for *Erigeron decumbens* var. *decumbens,* Marion County, Oregon.

(i) Unit 2 (WD–2): 518371, 4965422; 518439, 4965420; 518478, 4965420; 518509, 4965415; 518530, 4965402; 518545, 4965398; 518558, 4965390; 518602, 4965398; 518627, 4965391; 518660, 4965400; 518669, 4965390; 518659, 4965371; 518700, 4965357; 518698, 4965306; 518661, 4965289; 518650, 4965297; 518651, 4965310; 518626, 4965300; 518601, 4965284; 518558, 4965272; 518549, 4965289; 518516, 4965282; 518489, 4965281; 518460, 4965276; 518435, 4965253; 518373, 4965282; 518382, 4965290; 518368, 4965304; 518352, 4965308; 518331, 4965298; 518319, 4965302; 518305, 4965291; 518303, 4965258; 518295, 4965254; 518295, 4965241; 518274, 4965231; 518256, 4965244; 518247, 4965272; 518269, 4965319; 518267, 4965322; 518267, 4965333; 518256, 4965344; 518243, 4965349; 518233, 4965359; 518260, 4965371; 518278, 4965370; 518297, 4965357; 518308, 4965363; 518310, 4965351; 518348, 4965351; 518361, 4965359; 518366, 4965371; 518371, 4965422.

(ii) Note: Map 3 (Unit 2 for *Erigeron decumbens* var. *decumbens* (WD–2)) follows:


Map 3, Unit WD-2
Erigeron decumbens var. *decumbens*
Willamette Daisy (WD)
Triumph Rd SE
WD-2
Triumph Rd SE
South Fork Beaver Creek
Boedigheimer Rd SE
Coon Hollow Rd SE
Stream
Road
Final Critical Habitat
0 0.2 0.4 Miles
0 0.2 0.4 Kilometers
Marion County
Locational Index
N

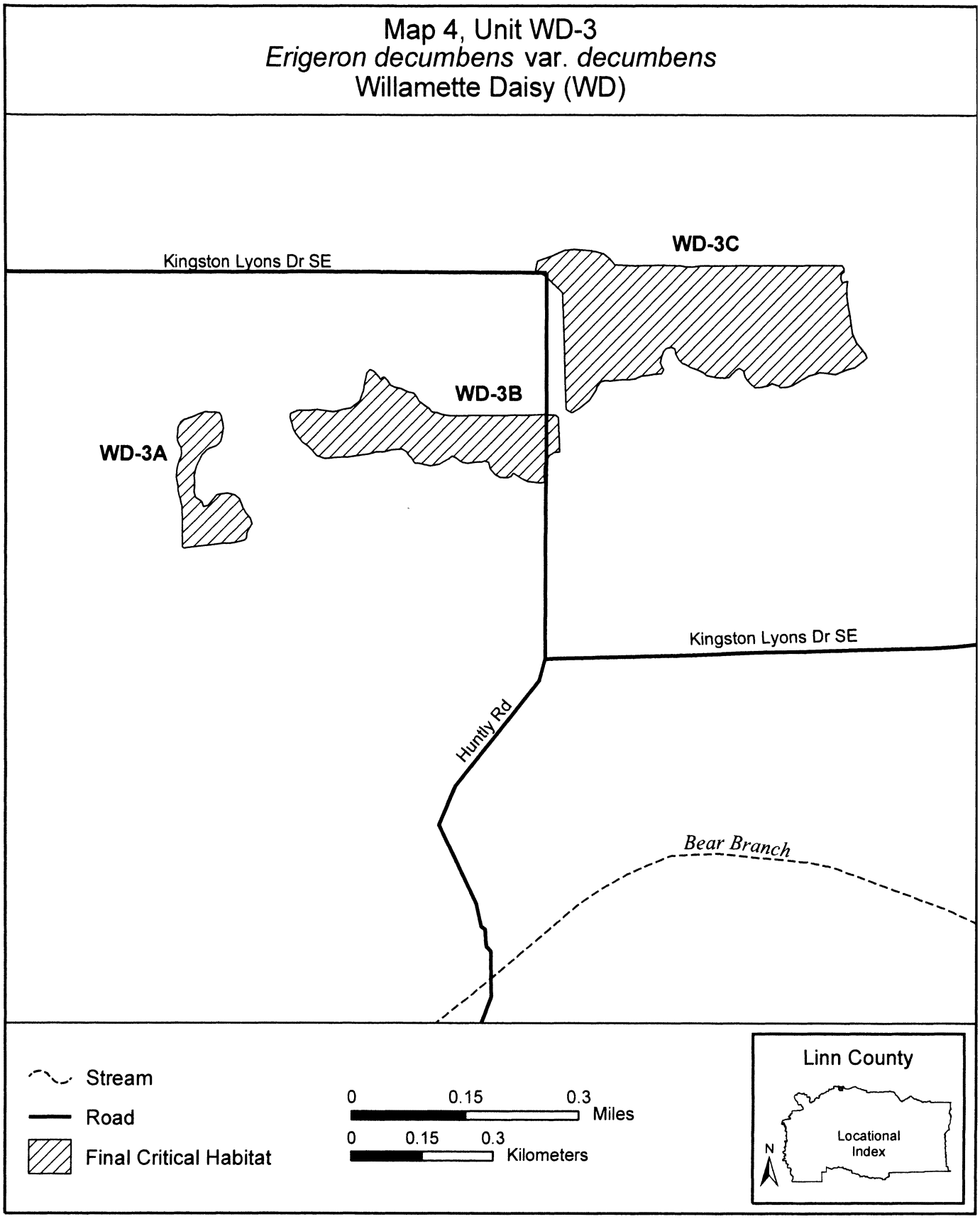
(8) Unit 3 for *Erigeron decumbens* var. *decumbens* (WD–3), Linn County, Oregon.

(i) Unit 3A (WD–3A): 519555, 4958320; 519563, 4958319; 519574, 4958319; 519585, 4958317; 519589, 4958311; 519592, 4958298; 519593, 4958286; 519592, 4958277; 519590, 4958266; 519587, 4958257; 519583, 4958253; 519578, 4958248; 519566, 4958245; 519557, 4958238; 519549, 4958230; 519541, 4958214; 519536, 4958205; 519532, 4958187; 519532, 4958176; 519532, 4958162; 519532, 4958156; 519532, 4958152; 519535, 4958141; 519547, 4958132; 519549, 4958129; 519551, 4958122; 519562, 4958125; 519579, 4958147; 519602, 4958149; 519617, 4958146; 519628, 4958137; 519635, 4958121; 519641, 4958109; 519650, 4958098; 519654, 4958084; 519648, 4958076; 519642, 4958065; 519642, 4958062; 519642, 4958055; 519638, 4958051; 519619, 4958047; 519607, 4958045; 519595, 4958045; 519544, 4958039; 519519, 4958037; 519512, 4958035; 519508, 4958037; 519506, 4958122; 519505, 4958128; 519503, 4958137; 519501, 4958144; 519498, 4958156; 519497, 4958164; 519494, 4958183; 519496, 4958201; 519497, 4958210; 519501, 4958218; 519505, 4958227; 519506, 4958233; 519505, 4958243; 519505, 4958245; 519501, 4958249; 519497, 4958260; 519496, 4958267; 519497, 4958272; 519498, 4958284; 519499, 4958288; 519504, 4958298; 519512, 4958303; 519528, 4958309; 519539, 4958314; 519545, 4958316; 519555, 4958320.

(ii) Unit 3B (WD–3B): 519922, 4958394; 519927, 4958387; 519932, 4958392; 519937, 4958390; 519943, 4958385; 519949, 4958375; 519957, 4958371; 519972, 4958368; 519984, 4958362; 519997, 4958358; 520004, 4958350; 520009, 4958342; 520019, 4958335; 520029, 4958327; 520035, 4958320; 520047, 4958318; 520056, 4958314; 520072, 4958312; 520238, 4958313; 520275, 4958314; 520299, 4958313; 520305, 4958308; 520307, 4958237; 520296, 4958236; 520285, 4958230; 520278, 4958217; 520275, 4958206; 520274, 4958185; 520276, 4958174; 520265, 4958171; 520239, 4958175; 520228, 4958180; 520208, 4958192; 520203, 4958186; 520197, 4958183; 520181, 4958183; 520170, 4958189; 520159, 4958201; 520156, 4958214; 520147, 4958218; 520141, 4958215; 520133, 4958215; 520124, 4958214; 520113, 4958213; 520100, 4958214; 520087, 4958224; 520078, 4958227; 520072, 4958223; 520062, 4958217; 520052, 4958211; 520032, 4958207; 520008, 4958213; 520000, 4958213; 519993, 4958224; 519988, 4958227; 519982, 4958237; 519972, 4958243; 519951, 4958240; 519935, 4958237; 519919, 4958237; 519903, 4958232; 519882, 4958230; 519857, 4958225; 519837, 4958225; 519809, 4958223; 519791, 4958229; 519783, 4958238; 519773, 4958248; 519762, 4958256; 519747, 4958275; 519741, 4958287; 519735, 4958308; 519737, 4958317; 519751, 4958323; 519775, 4958323; 519793, 4958324; 519827, 4958320; 519847, 4958324; 519864, 4958327; 519883, 4958342; 519889, 4958360; 519891, 4958367; 519893, 4958376; 519896, 4958389; 519898, 4958401; 519904, 4958407; 519913, 4958405; 519922, 4958394.

(iii) Unit 3C (WD–3C): 520426, 4958626; 520468, 4958624; 520525, 4958625; 520563, 4958624; 520576, 4958621; 520591, 4958621; 520607, 4958624; 520896, 4958625; 520906, 4958625; 520909, 4958619; 520909, 4958611; 520905, 4958607; 520902, 4958598; 520906, 4958589; 520918, 4958593; 520915, 4958581; 520915, 4958560; 520920, 4958529; 520922, 4958512; 520927, 4958483; 520936, 4958464; 520944, 4958455; 520953, 4958443; 520957, 4958433; 520949, 4958426; 520932, 4958413; 520912, 4958407; 520891, 4958399; 520870, 4958401; 520858, 4958402; 520847, 4958399; 520836, 4958396; 520822, 4958389; 520811, 4958381; 520801, 4958376; 520789, 4958373; 520775, 4958371; 520771, 4958375; 520757, 4958380; 520749, 4958375; 520736, 4958373; 520721, 4958371; 520713, 4958377; 520705, 4958387; 520700, 4958395; 520697, 4958406; 520688, 4958411; 520681, 4958407; 520672, 4958400; 520666, 4958393; 520658, 4958390; 520641, 4958392; 520619, 4958396; 520613, 4958401; 520605, 4958406; 520591, 4958411; 520584, 4958413; 520574, 4958419; 520568, 4958421; 520560, 4958429; 520553, 4958442; 520552, 4958451; 520545, 4958455; 520533, 4958452; 520527, 4958445; 520524, 4958436; 520521, 4958423; 520526, 4958413; 520528, 4958408; 520524, 4958400; 520509, 4958399; 520494, 4958396; 520482, 4958395; 520468, 4958389; 520455, 4958387; 520441, 4958387; 520415, 4958385; 520405, 4958386; 520395, 4958383; 520387, 4958373; 520384, 4958364; 520371, 4958344; 520350, 4958327; 520333, 4958318; 520321, 4958324; 520320, 4958331; 520319, 4958402; 520318, 4958432; 520318, 4958451; 520314, 4958568; 520279, 4958601; 520256, 4958614; 520260, 4958633; 520294, 4958645; 520319, 4958656; 520339, 4958657; 520375, 4958655; 520402, 4958649; 520415, 4958638; 520426, 4958626.

(iv) Note: Map 4 (Unit 3 for *Erigeron decumbens* var. *decumbens* (WD–3)) follows:

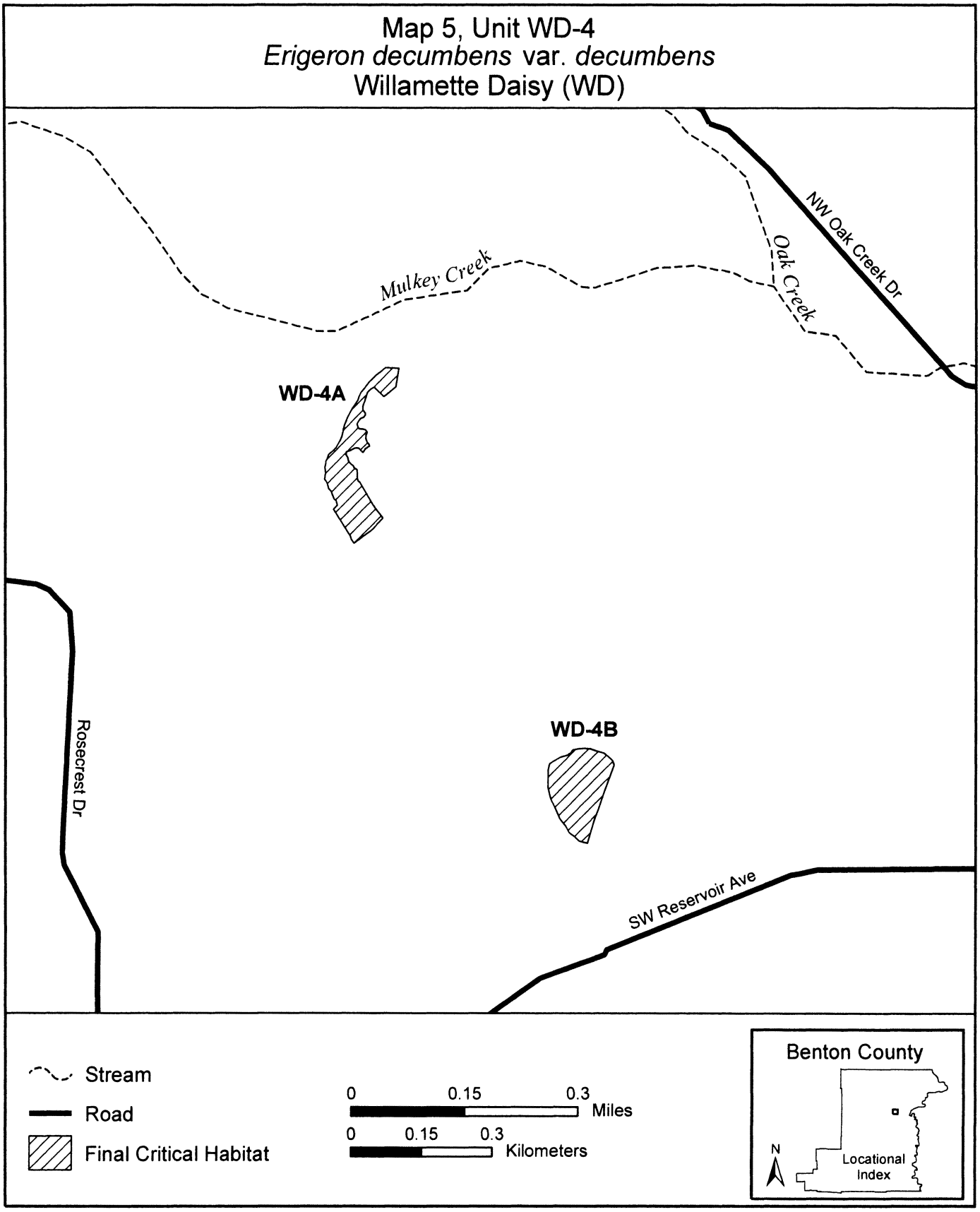

Map 4, Unit WD-3
Erigeron decumbens var. *decumbens*
Willamette Daisy (WD)
Kingston Lyons Dr SE
WD-3C
WD-3B
WD-3A
Kingston Lyons Dr SE
Huntly Rd
Bear Branch
Stream
Road
Final Critical Habitat
0 0.15 0.3 Miles
0 0.15 0.3 Kilometers
Linn County
Locational Index
N

(9) Unit 4 for *Erigeron decumbens* var. *decumbens* (WD–4), Benton County, Oregon.

(i) Unit 4A (WD–4A): 473431, 4935402; 473406, 4935381; 473384, 4935401; 473380, 4935398; 473374, 4935394; 473370, 4935388; 473368, 4935380; 473366, 4935376; 473365, 4935371; 473363, 4935367; 473361, 4935361; 473361, 4935354; 473366, 4935347; 473366, 4935343; 473363, 4935338; 473357, 4935335; 473352, 4935331; 473348, 4935324; 473350, 4935318; 473352, 4935314; 473357, 4935313; 473362, 4935313; 473365, 4935312; 473368, 4935310; 473370, 4935307; 473367, 4935300; 473367, 4935294; 473369, 4935288; 473370, 4935285; 473373, 4935281; 473375, 4935278; 473374, 4935277; 473371, 4935276; 473369, 4935274; 473366, 4935273; 473365, 4935270; 473364, 4935268; 473361, 4935264; 473357, 4935268; 473355, 4935269; 473352, 4935272; 473351, 4935274; 473345, 4935274; 473340, 4935272; 473337, 4935270; 473333, 4935269; 473326, 4935266; 473325, 4935260; 473328, 4935255; 473329, 4935250; 473331, 4935246; 473333, 4935242; 473337, 4935238; 473340, 4935236; 473342, 4935232; 473348, 4935228; 473348, 4935225; 473348, 4935216; 473348, 4935211; 473350, 4935205; 473354, 4935202; 473382, 4935154; 473386, 4935149; 473403, 4935128; 473379, 4935102; 473342, 4935074; 473336, 4935083; 473333, 4935091; 473298, 4935146; 473303, 4935150; 473306, 4935153; 473303, 4935164; 473299, 4935168; 473297, 4935173; 473295, 4935178; 473293, 4935183; 473288, 4935189; 473286, 4935194; 473284, 4935202; 473282, 4935206; 473279, 4935209; 473281, 4935220; 473281, 4935226; 473280, 4935233; 473282, 4935241; 473282, 4935246; 473284, 4935251; 473288, 4935260; 473296, 4935267; 473303, 4935275; 473312, 4935288; 473316, 4935299; 473319, 4935311; 473322, 4935323; 473327, 4935333; 473330, 4935342; 473335, 4935351; 473341, 4935361; 473349, 4935372; 473352, 4935380; 473357, 4935391; 473366, 4935400; 473373, 4935410; 473378, 4935416; 473388, 4935424; 473410, 4935441; 473437, 4935441; 473431, 4935402.

(ii) Unit 4B (WD–4B): 473855, 4934497; 473838, 4934445; 473821, 4934449; 473811, 4934458; 473800, 4934466; 473793, 4934479; 473780, 4934496; 473770, 4934518; 473760, 4934538; 473758, 4934544; 473754, 4934561; 473754, 4934599; 473757, 4934611; 473766, 4934617; 473774, 4934622; 473782, 4934626; 473789, 4934629; 473796, 4934630; 473803, 4934635; 473807, 4934641; 473815, 4934642; 473821, 4934643; 473831, 4934644; 473845, 4934643; 473857, 4934639; 473873, 4934635; 473882, 4934628; 473892, 4934619; 473894, 4934609; 473855, 4934497.

(iii) Note: Map 5 (Unit 4 for *Erigeron decumbens* var. *decumbens* (WD–4)) follows:

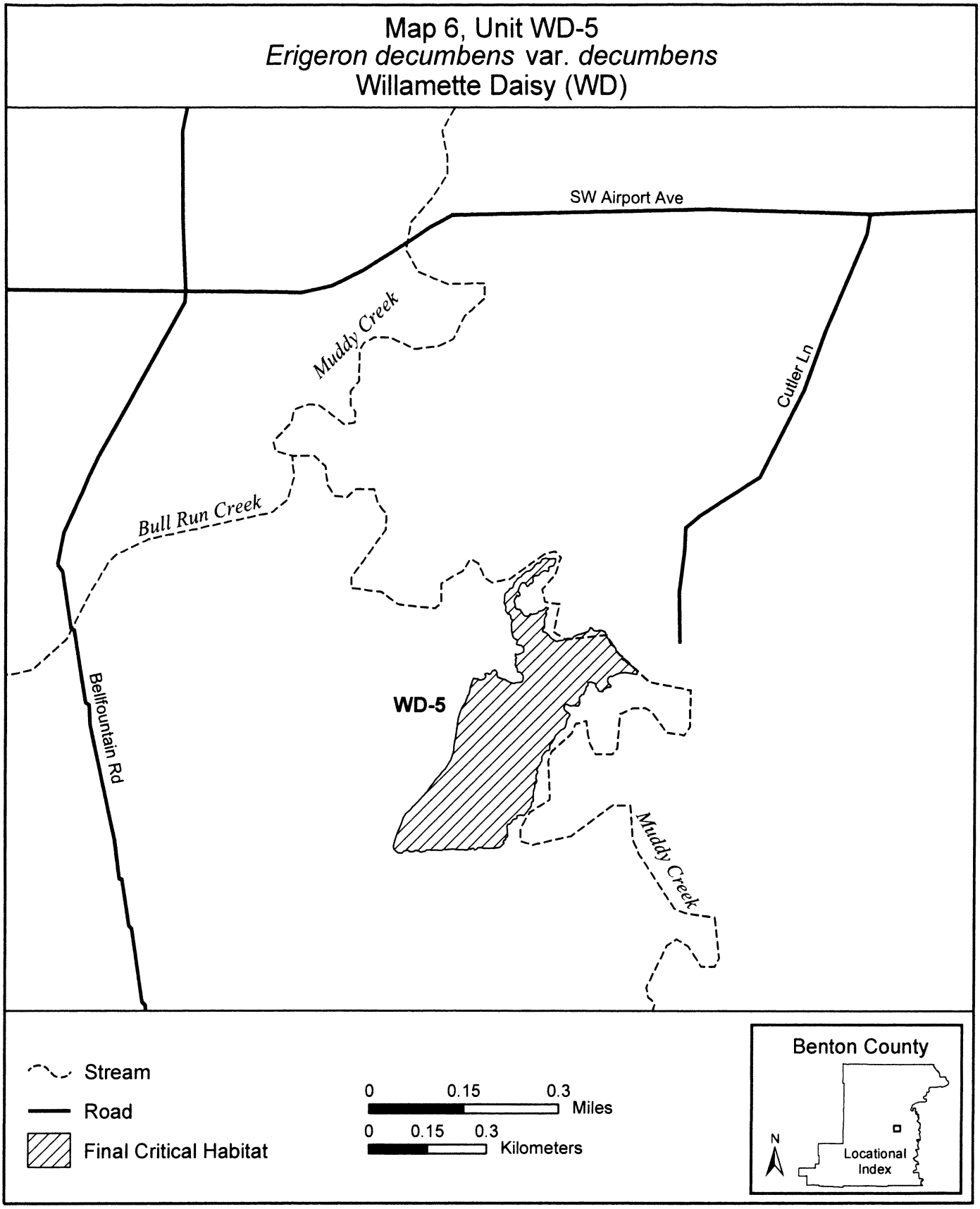

Map 5, Unit WD-4
Erigeron decumbens var. *decumbens*
Willamette Daisy (WD)
NW Oak Creek Dr
Mulkey Creek
Oak Creek
WD-4A
WD-4B
Rosecrest Dr
SW Reservoir Ave
Stream
Road
Final Critical Habitat
0 0.15 0.3 Miles
0 0.15 0.3 Kilometers
Benton County
N
Locational Index

(10) Unit 5 of *Erigeron decumbens* var. *decumbens* (WD–5), Benton County, Oregon.

(i) Unit 5 (WD–5): 474073, 4926323; 474080, 4926323; 474086, 4926324; 474091, 4926323; 474091, 4926315; 474088, 4926311; 474087, 4926307; 474083, 4926305; 474079, 4926304; 474074, 4926304; 474074, 4926299; 474074, 4926292; 474070, 4926293; 474063, 4926294; 474054, 4926289; 474049, 4926283; 474044, 4926282; 474040, 4926281; 474034, 4926277; 474034, 4926271; 474035, 4926268; 474034, 4926263; 474027, 4926260; 474024, 4926256; 474020, 4926254; 474017, 4926259; 474014, 4926263; 474007, 4926264; 474003, 4926259; 474000, 4926252; 473997, 4926247; 473997, 4926241; 474000, 4926236; 474002, 4926230; 473997, 4926229; 473993, 4926232; 473991, 4926227; 473988, 4926223; 473986, 4926215; 473989, 4926211; 473989, 4926205; 473992, 4926198; 473997, 4926197; 474000, 4926196; 474004, 4926192; 474007, 4926188; 474010, 4926183; 474014, 4926179; 474024, 4926179; 474025, 4926184; 474029, 4926186; 474033, 4926183; 474046, 4926187; 474050, 4926192; 474056, 4926192; 474063, 4926196; 474068, 4926201; 474074, 4926199; 474067, 4926192; 474069, 4926183; 474067, 4926179; 474064, 4926173; 474064, 4926166; 474064, 4926159; 474064, 4926150; 474060, 4926147; 474060, 4926140; 474067, 4926138; 474075, 4926131; 474080, 4926125; 474088, 4926119; 474092, 4926116; 474098, 4926115; 474100, 4926117; 474105, 4926118; 474112, 4926120; 474116, 4926121; 474120, 4926123; 474125, 4926124; 474127, 4926124; 474133, 4926121; 474135, 4926122; 474139, 4926126; 474142, 4926128; 474146, 4926131; 474151, 4926133; 474159, 4926135; 474165, 4926137; 474170, 4926139; 474176, 4926140; 474178, 4926144; 474179, 4926148; 474181, 4926151; 474185, 4926148; 474190, 4926142; 474198, 4926141; 474205, 4926144; 474211, 4926142; 474218, 4926140; 474220, 4926133; 474224, 4926124; 474229, 4926118; 474231, 4926112; 474235, 4926107; 474241, 4926105; 474244, 4926099; 474247, 4926090; 474252, 4926085; 474258, 4926080; 474262, 4926077; 474263, 4926070; 474270, 4926068; 474270, 4926066; 474274, 4926062; 474281, 4926058; 474287, 4926053; 474290, 4926049; 474297, 4926046; 474299, 4926041; 474299, 4926033; 474286, 4926035; 474270, 4926037; 474257, 4926036; 474245, 4926032; 474238, 4926027; 474233, 4926028; 474229, 4926026; 474226, 4926022; 474225, 4926016; 474228, 4926010; 474234, 4926003; 474232, 4926000; 474229, 4926001; 474222, 4925999; 474215, 4925995; 474213, 4925990; 474205, 4925989; 474202, 4925992; 474202, 4925995; 474198, 4925999; 474195, 4926002; 474195, 4926006; 474191, 4926011; 474185, 4926013; 474180, 4926014; 474176, 4926012; 474176, 4926005; 474171, 4926003; 474170, 4925997; 474169, 4925992; 474166, 4925988; 474165, 4925983; 474159, 4925982; 474158, 4925978; 474153, 4925975; 474154, 4925960; 474151, 4925953; 474146, 4925953; 474140, 4925954; 474132, 4925953; 474127, 4925954; 474123, 4925957; 474117, 4925957; 474114, 4925950; 474116, 4925943; 474118, 4925940; 474124, 4925936; 474127, 4925935; 474130, 4925929; 474126, 4925924; 474123, 4925919; 474120, 4925908; 474119, 4925903; 474117, 4925897; 474107, 4925892; 474103, 4925888; 474098, 4925884; 474092, 4925877; 474089, 4925868; 474085, 4925860; 474080, 4925856; 474078, 4925851; 474079, 4925845; 474077, 4925841; 474071, 4925839; 474067, 4925836; 474062, 4925829; 474059, 4925823; 474059, 4925812; 474055, 4925809; 474053, 4925804; 474049, 4925800; 474048, 4925795; 474046, 4925791; 474048, 4925787; 474048, 4925783; 474045, 4925778; 474043, 4925770; 474046, 4925763; 474045, 4925758; 474041, 4925754; 474041, 4925748; 474041, 4925744; 474039, 4925741; 474038, 4925734; 474038, 4925729; 474036, 4925720; 474037, 4925712; 474034, 4925710; 474032, 4925706; 474032, 4925699; 474029, 4925694; 474025, 4925690; 474022, 4925685; 474020, 4925681; 474018, 4925678; 474014, 4925676; 474010, 4925676; 474009, 4925677; 474005, 4925677; 473998, 4925676; 473995, 4925673; 473995, 4925671; 473996, 4925667; 473992, 4925667; 473989, 4925666; 473985, 4925663; 473983, 4925660; 473982, 4925658; 473979, 4925653; 473977, 4925653; 473974, 4925653; 473971, 4925650; 473970, 4925647; 473971, 4925639; 473971, 4925632; 473972, 4925624; 473971, 4925621; 473967, 4925618; 473967, 4925613; 473963, 4925612; 473961, 4925608; 473964, 4925605; 473960, 4925601; 473957, 4925598; 473951, 4925594; 473944, 4925594; 473938, 4925592; 473935, 4925592; 473932, 4925593; 473927, 4925592; 473909, 4925592; 473905, 4925594; 473900, 4925595; 473895, 4925593; 473894, 4925590; 473888, 4925588; 473886, 4925592; 473882, 4925592; 473879, 4925589; 473877, 4925591; 473869, 4925588; 473840, 4925589; 473833, 4925590; 473815, 4925589; 473808, 4925589; 473805, 4925587; 473766, 4925588; 473763, 4925585; 473755, 4925584; 473754, 4925582; 473749, 4925584; 473744, 4925585; 473742, 4925587; 473738, 4925587; 473731, 4925584; 473721, 4925584; 473719, 4925587; 473710, 4925586; 473706, 4925583; 473703, 4925581; 473693, 4925580; 473683, 4925589; 473681, 4925596; 473683, 4925605; 473687, 4925618; 473690, 4925628; 473696, 4925641; 473702, 4925655; 473706, 4925667; 473713, 4925679; 473724, 4925689; 473731, 4925698; 473742, 4925708; 473752, 4925720; 473761, 4925729; 473769, 4925738; 473775, 4925747; 473781, 4925754; 473785, 4925761; 473791, 4925769; 473798, 4925776; 473806, 4925787; 473814, 4925794; 473822, 4925808; 473827, 4925816; 473830, 4925827; 473834, 4925839; 473836, 4925856; 473839, 4925872; 473841, 4925888; 473843, 4925905; 473845, 4925919; 473848, 4925931; 473853, 4925943; 473857, 4925951; 473862, 4925960; 473866, 4925969; 473868, 4925975; 473870, 4925979; 473873, 4925982; 473873, 4925985; 473875, 4925989; 473876, 4925994; 473876, 4925997; 473876, 4926002; 473879, 4926008; 473879, 4926012; 473881, 4926016; 473883, 4926020; 473884, 4926022; 473886, 4926023; 473890, 4926021; 473894, 4926021; 473896, 4926021; 473897, 4926020; 473901, 4926018; 473903, 4926018; 473909, 4926021; 473912, 4926021; 473915, 4926025; 473915, 4926030; 473914, 4926032; 473913, 4926034; 473917, 4926035; 473920, 4926035; 473925, 4926033; 473928, 4926034; 473929, 4926036; 473931, 4926040; 473934, 4926043; 473938, 4926043; 473942, 4926042; 473944, 4926038; 473944, 4926036; 473944, 4926031; 473945, 4926025; 473948, 4926024; 473956, 4926021; 473961, 4926021; 473965, 4926019; 473968, 4926017; 473972, 4926016; 473977, 4926013; 473979, 4926011; 473986, 4926010; 473990, 4926011; 473994, 4926012; 473998, 4926013; 474003, 4926013; 474008, 4926016; 474010, 4926021; 474010, 4926025; 474010, 4926030; 474004, 4926036; 474000, 4926038; 473997, 4926038; 473996, 4926043; 473995, 4926048; 473992, 4926053; 473990, 4926057; 473992, 4926067; 473990, 4926069; 473991, 4926071; 473993, 4926073; 473993, 4926075; 473990, 4926078; 473990, 4926084; 473993, 4926082; 473997, 4926082; 474004, 4926084; 474011, 4926089; 474011, 4926094; 474011, 4926099; 474006, 4926105; 474000, 4926106; 473994, 4926108; 473993, 4926110; 473995, 4926116; 473996, 4926120; 473989, 4926123;

473985, 4926124; 473983, 4926131; 473981, 4926141; 473981, 4926142; 473981, 4926149; 473980, 4926156; 473981, 4926163; 473982, 4926169; 473979, 4926174; 473978, 4926180; 473972, 4926186; 473971, 4926184; 473968, 4926189; 473965, 4926194; 473965, 4926201; 473964, 4926208; 473961, 4926213; 473961, 4926218; 473961, 4926225; 473963, 4926230; 473964, 4926235; 473967, 4926238; 473971, 4926241; 473974, 4926245; 473975, 4926247; 473981, 4926250; 473984, 4926253; 473985, 4926258; 473987, 4926264; 473991, 4926267; 473992, 4926269; 473996, 4926273; 473999, 4926275; 474004, 4926278; 474005, 4926279; 474009, 4926284; 474013, 4926288; 474017, 4926290; 474019, 4926291; 474021, 4926293; 474024, 4926293; 474027, 4926294; 474031, 4926297; 474035, 4926301; 474037, 4926303; 474039, 4926307; 474043, 4926310; 474045, 4926312; 474049, 4926313; 474050, 4926313; 474052, 4926314; 474054, 4926315; 474055, 4926318; 474057, 4926321; 474059, 4926323; 474063, 4926325; 474067, 4926326; 474070, 4926324; 474073, 4926323.

(ii) Note: Map 6 (Unit 5 for *Erigeron decumbens* var. *decumbens* (WD–5)) follows:


Map 6, Unit WD-5
Erigeron decumbens var. decumbens
Willamette Daisy (WD)
SW Airport Ave
Muddy Creek
Cutler Ln
Bull Run Creek
Bellfountain Rd
WD-5
Muddy Creek
Stream
Road
Final Critical Habitat
0 0.15 0.3
Miles
0 0.15 0.3
Kilometers
Benton County
N
Locational Index

BILLING CODE 4310–55–C

(11) Unit 6 of *Erigeron decumbens* var. *decumbens* (WD–6), Lane County, Oregon.

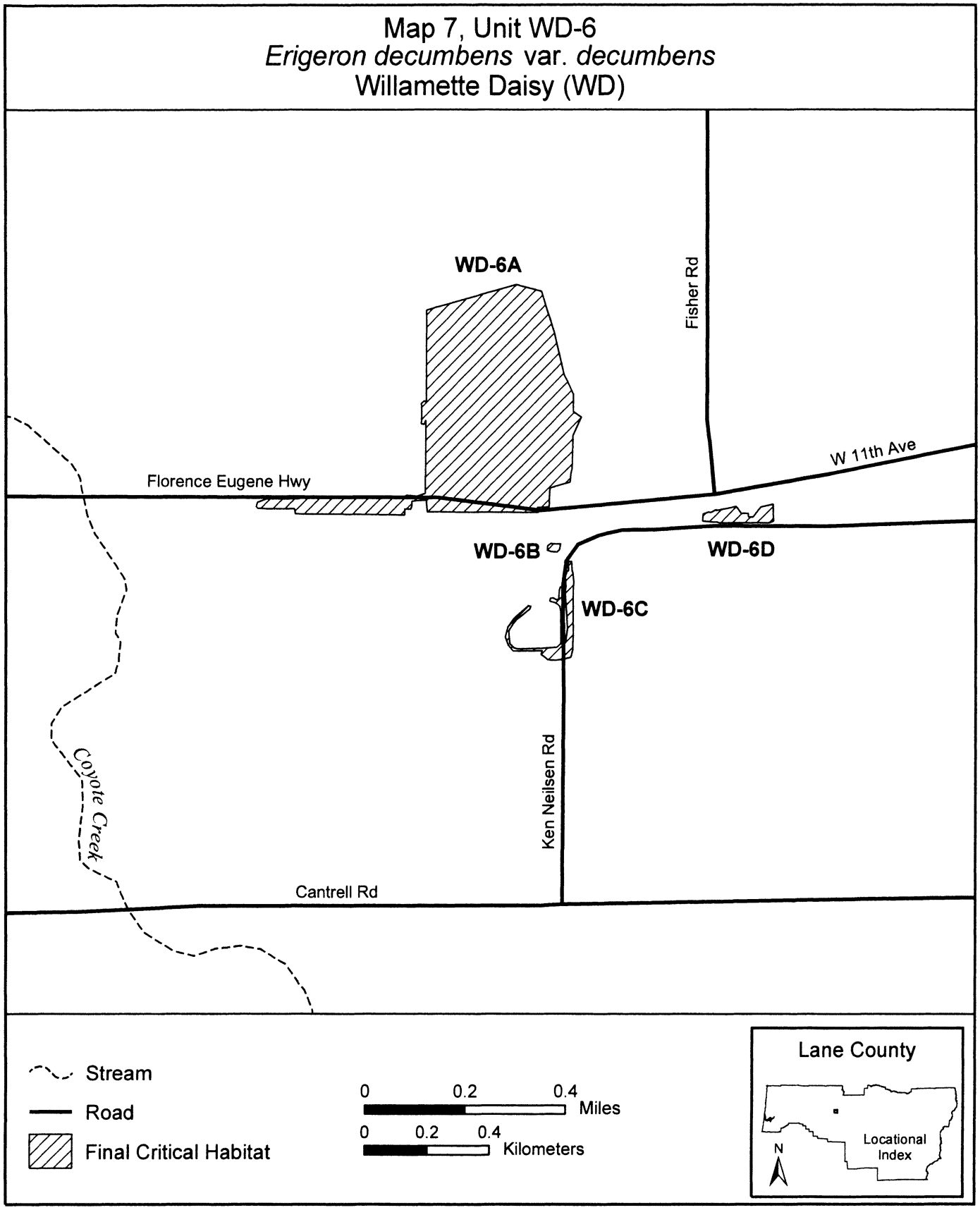
(i) Unit 6A (WD–6A): 479981, 4878131; 479980, 4878075; 480005, 4878058; 479979, 4878000; 479976, 4877895; 479973, 4877884; 479970, 4877854; 479905, 4877836; 479902, 4877775; 479866, 4877774; 479869, 4877759; 479513, 4877760; 479509, 4877798; 479466, 4877794; 479463, 4877792; 479464, 4877792; 479465, 4877781; 479461, 4877769; 479441, 4877769; 479440, 4877751; 479220, 4877753; 479148, 4877754; 479138, 4877753; 479138, 4877754; 479092, 4877754; 479090, 4877770; 479004, 4877770; 478975, 4877772; 478968, 4877777; 478973, 4877791; 478982, 4877794; 479002, 4877802; 479105, 4877802; 479109, 4877806; 479163, 4877808; 479221, 4877806; 479298, 4877808; 479441, 4877808; 479448, 4877812; 479479, 4877810; 479477, 4877808; 479507, 4877819; 479509, 4878049; 479503, 4878036; 479494, 4878038; 479495, 4878064; 479495, 4878081; 479494, 4878101; 479503, 4878110; 479509, 4878106; 479511, 4878393; 479798, 4878473; 479879, 4878451; 479919, 4878324; 479950, 4878194; 479981, 4878131.

(ii) Unit 6B (WD–6B): 479936, 4877638; 479929, 4877634; 479911, 4877635; 479898, 4877639; 479899, 4877653; 479910, 4877660; 479925, 4877659; 479939, 4877658; 479938, 4877652; 479936, 4877638.

(iii) Unit 6C (WD–6C): 479980, 4877368; 479979, 4877324; 479978, 4877323; 479978, 4877320; 479978, 4877320; 479973, 4877301; 479948, 4877295; 479922, 4877293; 479899, 4877294; 479894, 4877299; 479878, 4877312; 479882, 4877323; 479789, 4877322; 479773, 4877340; 479764, 4877365; 479771, 4877397; 479794, 4877426; 479837, 4877464; 479844, 4877462; 479841, 4877454; 479798, 4877419; 479784, 4877398; 479774, 4877383; 479775, 4877364; 479778, 4877346; 479790, 4877332; 479801, 4877328; 479900, 4877331; 479929, 4877334; 479940, 4877344; 479941, 4877446; 479937, 4877462; 479931, 4877469; 479920, 4877474; 479905, 4877478; 479908, 4877488; 479916, 4877488; 479928, 4877482; 479935, 4877486; 479934, 4877499; 479935, 4877513; 479938, 4877522; 479943, 4877523; 479948, 4877509; 479949, 4877344; 479947, 4877340; 479955, 4877348; 479963, 4877391; 479960, 4877425; 479954, 4877508; 479957, 4877527; 479954, 4877553; 479959, 4877572; 479964, 4877574; 479965, 4877580; 479963, 4877603; 479975, 4877603; 479976, 4877574; 479979, 4877568; 479982, 4877540; 479981, 4877511; 479981, 4877439; 479980, 4877368.

(iv) Unit 6D (WD–6D): 480616, 4877784; 480618, 4877730; 480603, 4877726; 480494, 4877726; 480444, 4877726; 480436, 4877729; 480422, 4877729; 480392, 4877731; 480393, 4877753; 480411, 4877760; 480418, 4877759; 480435, 4877767; 480435, 4877764; 480500, 4877776; 480515, 4877756; 480520, 4877756; 480536, 4877756; 480538, 4877744; 480553, 4877744; 480577, 4877776; 480616, 4877784.

(v) Note: Map 7 (Unit 6 for *Erigeron decumbens* var. *decumbens* (WD–6)) follows:

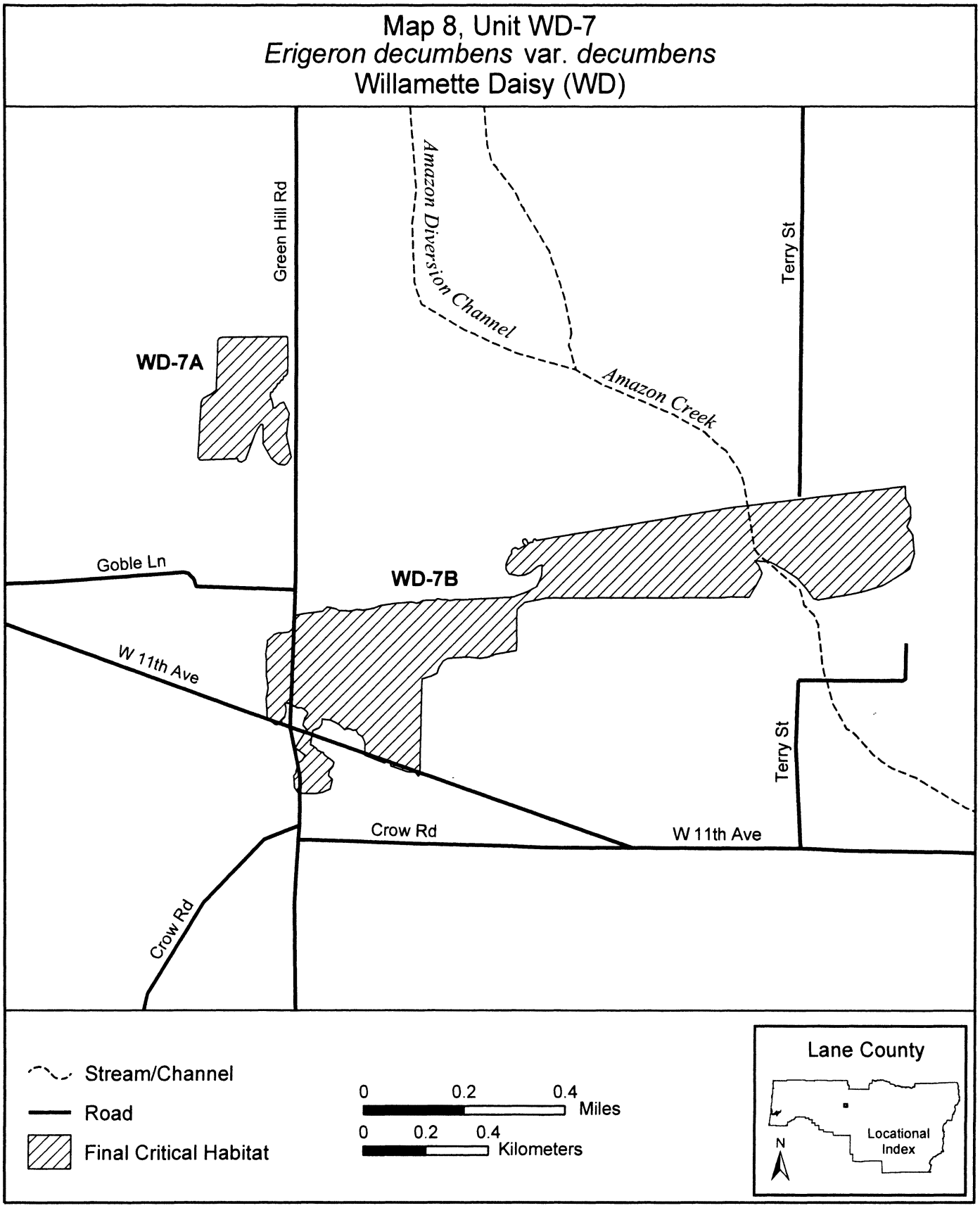

Map 7, Unit WD-6
Erigeron decumbens var. decumbens
Willamette Daisy (WD)
WD-6A
Fisher Rd
W 11th Ave
Florence Eugene Hwy
WD-6B
WD-6D
WD-6C
Ken Neilsen Rd
Coyote Creek
Cantrell Rd
Stream
Road
Final Critical Habitat
0 0.2 0.4
Miles
0 0.2 0.4
Kilometers
Lane County
N
Locational Index

(12) Unit 7 for *Erigeron decumbens* var. *decumbens* (WD–7), Lane County, Oregon.

(i) Unit 7A (WD–7A): 483250, 4878670; 483258, 4878669; 483272, 4878683; 483285, 4878687; 483302, 4878653; 483294, 4878582; 483309, 4878514; 483297, 4878495; 483289, 4878490; 483268, 4878492; 483247, 4878510; 483220, 4878557; 483220, 4878609; 483220, 4878615; 483217, 4878617; 483211, 4878618; 483207, 4878611; 483203, 4878602; 483192, 4878583; 483184, 4878561; 483164, 4878507; 483151, 4878499; 483141, 4878502; 483140, 4878509; 483019, 4878506; 483013, 4878513; 483013, 4878524; 483022, 4878686; 483026, 4878696; 483030, 4878700; 483059, 4878715; 483070, 4878725; 483076, 4878881; 483082, 4878888; 483092, 4878891; 483296, 4878892; 483299, 4878886; 483299, 4878836; 483298, 4878805; 483297, 4878777; 483292, 4878770; 483286, 4878767; 483282, 4878758; 483274, 4878754; 483272, 4878748; 483266, 4878745; 483264, 4878738; 483260, 4878732; 483253, 4878726; 483250, 4878720; 483244, 4878717; 483241, 4878706; 483246, 4878696; 483250, 4878685; 483251, 4878678; 483250, 4878670.

(ii) Unit 7B (WD–7B): 485283, 4878271; 485286, 4878248; 485290, 4878211; 485280, 4878182; 485273, 4878164; 485255, 4878152; 485226, 4878134; 485191, 4878112; 485139, 4878096; 485082, 4878082; 485037, 4878076; 484986, 4878067; 484970, 4878070; 484949, 4878100; 484919, 4878135; 484885, 4878157; 484861, 4878170; 484835, 4878184; 484822, 4878185; 484785, 4878189; 484796, 4878175; 484803, 4878161; 484808, 4878152; 484802, 4878135; 484790, 4878112; 484768, 4878074; 484709, 4878076; 484682, 4878073; 484122, 4878072; 484053, 4878057; 484030, 4878036; 484029, 4878010; 484029, 4877979; 484029, 4877937; 484027, 4877906; 483963, 4877895; 483936, 4877885; 483911, 4877880; 483867, 4877886; 483809, 4877880; 483794, 4877873; 483780, 4877852; 483774, 4877835; 483752, 4877825; 483726, 4877816; 483719, 4877516; 483716, 4877509; 483704, 4877522; 483682, 4877522; 483627, 4877541; 483624, 4877559; 483607, 4877551; 483544, 4877576; 483544, 4877596; 483544, 4877617; 483537, 4877633; 483524, 4877641; 483515, 4877655; 483506, 4877653; 483492, 4877660; 483480, 4877656; 483461, 4877673; 483434, 4877687; 483418, 4877688; 483407, 4877690; 483406, 4877673; 483399, 4877663; 483377, 4877652; 483371, 4877607; 483376, 4877606; 483386, 4877599; 483390, 4877596; 483394, 4877589; 483397, 4877590; 483399, 4877588; 483413, 4877583; 483416, 4877577; 483441, 4877557; 483445, 4877552; 483441, 4877539; 483431, 4877527; 483429, 4877512; 483440, 4877498; 483434, 4877468; 483409, 4877458; 483389, 4877453; 483354, 4877453; 483333, 4877456; 483321, 4877471; 483318, 4877509; 483325, 4877517; 483325, 4877525; 483331, 4877540; 483332, 4877540; 483332, 4877550; 483344, 4877559; 483354, 4877574; 483328, 4877594; 483323, 4877597; 483323, 4877599; 483359, 4877655; 483347, 4877670; 483352, 4877691; 483363, 4877705; 483360, 4877711; 483349, 4877721; 483340, 4877725; 483337, 4877726; 483328, 4877725; 483301, 4877740; 483290, 4877740; 483292, 4877729; 483293, 4877723; 483293, 4877715; 483289, 4877694; 483281, 4877686; 483279, 4877679; 483265, 4877671; 483263, 4877674; 483258, 4877672; 483242, 4877686; 483239, 4877689; 483234, 4877690; 483234, 4877711; 483230, 4877753; 483237, 4877787; 483231, 4877827; 483231, 4877874; 483228, 4877895; 483233, 4877918; 483232, 4877922; 483235, 4877927; 483234, 4877928; 483234, 4877938; 483236, 4877939; 483256, 4877956; 483270, 4877961; 483284, 4877961; 483302, 4877964; 483311, 4877972; 483315, 4877979; 483315, 4877990; 483314, 4877996; 483315, 4877998; 483318, 4878012; 483322, 4878016; 483351, 4878022; 483376, 4878024; 483409, 4878030; 483424, 4878042; 483452, 4878036; 483461, 4878030; 483498, 4878029; 483518, 4878034; 483538, 4878032; 483571, 4878038; 483593, 4878046; 483617, 4878050; 483645, 4878054; 483668, 4878056; 483687, 4878058; 483699, 4878057; 483709, 4878054; 483718, 4878057; 483727, 4878063; 483736, 4878064; 483755, 4878064; 483768, 4878063; 483776, 4878068; 483791, 4878065; 483803, 4878066; 483813, 4878062; 483823, 4878064; 483832, 4878066; 483842, 4878066; 483855, 4878065; 484016, 4878074; 484063, 4878091; 484091, 4878107; 484108, 4878143; 484109, 4878176; 484096, 4878173; 484089, 4878167; 484073, 4878153; 484055, 4878144; 484032, 4878141; 484005, 4878147; 483994, 4878161; 483994, 4878179; 484003, 4878200; 484012, 4878210; 484011, 4878216; 484013, 4878222; 484017, 4878226; 484023, 4878229; 484028, 4878228; 484032, 4878224; 484056, 4878237; 484048, 4878244; 484047, 4878252; 484050, 4878256; 484055, 4878257; 484060, 4878253; 484064, 4878243; 484073, 4878246; 484079, 4878248; 484079, 4878253; 484082, 4878256; 484086, 4878256; 484090, 4878254; 484726, 4878359; 484731, 4878360; 485192, 4878416; 485260, 4878425; 485261, 4878387; 485276, 4878359; 485276, 4878324; 485264, 4878298; 485283, 4878271.

(iii) Note: Map 8 (Unit 7 for *Erigeron decumbens* var. *decumbens* (WD–7)) follows:


Map 8, Unit WD-7
Erigeron decumbens var. decumbens
Willamette Daisy (WD)
Green Hill Rd
Amazon Diversion Channel
Terry St
WD-7A
Amazon Creek
Goble Ln
WD-7B
W 11th Ave
Terry St
Crow Rd
W 11th Ave
Crow Rd
Stream/Channel
Road
Final Critical Habitat
0 0.2 0.4
Miles
0 0.2 0.4
Kilometers
Lane County
Locational Index
N

(13) Unit 8 for *Erigeron decumbens* var. *decumbens* (WD–8), Lane County, Oregon.

(i) Unit 8A (WD–8A): 485561, 4877295; 485562, 4877284; 485629, 4877284; 485645, 4877274; 485654, 4877257; 485673, 4877230; 485694, 4877225; 485718, 4877215; 485737, 4877213; 485743, 4877226; 485986, 4877222; 486046, 4877221; 486095, 4877215; 486136, 4877209; 486179, 4877192; 486205, 4877172; 486228, 4877154; 486241, 4877142; 486257, 4877125; 486269, 4877102; 486266, 4876751; 486267, 4876727; 486279, 4876713; 486287, 4876694; 486294, 4876684; 486296, 4876591; 486286, 4876460; 486279, 4876449; 486270, 4876410; 486260, 4876389; 486252, 4876169; 485950, 4876177; 485863, 4876180; 485857, 4876232; 485863, 4876325; 485866, 4876383; 485866, 4876458; 485866, 4876496; 485857, 4876554; 485854, 4876621; 485852, 4876696; 485860, 4876742; 485840, 4876789; 485797, 4876824; 485759, 4876841; 485701, 4876856; 485657, 4876850; 485625, 4876847; 485623, 4876992; 485625, 4877015; 485640, 4877044; 485665, 4877071; 485642, 4877087; 485633, 4877125; 485643, 4877218; 485623, 4877249; 485593, 4877249; 485562, 4877250; 485534, 4877251; 485535, 4877259; 485557, 4877293; 485561, 4877295.

(ii) Unit 8B (WD–8B): 486605, 4876640; 486608, 4876631; 486627, 4876636; 486632, 4876635; 486640, 4876635; 486657, 4876628; 486661, 4876606; 486650, 4876579; 486656, 4876557; 486668, 4876600; 486683, 4876621; 486704, 4876623; 486726, 4876604; 486732, 4876587; 486781, 4876558; 486789, 4876539; 486795, 4876512; 486782, 4876491; 486770, 4876484; 486741, 4876473; 486688, 4876472; 486667, 4876485; 486657, 4876501; 486653, 4876529; 486654, 4876499; 486652, 4876472; 486642, 4876455; 486627, 4876441; 486618, 4876441; 486602, 4876442; 486601, 4876435; 486602, 4876406; 486602, 4876397; 486598, 4876393; 486593, 4876396; 486591, 4876407; 486591, 4876417; 486590, 4876426; 486590, 4876435; 486590, 4876443; 486562, 4876457; 486556, 4876492; 486557, 4876500; 486551, 4876505; 486547, 4876506; 486540, 4876510; 486543, 4876524; 486547, 4876537; 486552, 4876545; 486557, 4876550; 486561, 4876557; 486562, 4876564; 486582, 4876581; 486589, 4876597; 486590, 4876602; 486589, 4876609; 486589, 4876621; 486589, 4876635; 486590, 4876653; 486591, 4876659; 486594, 4876667; 486600, 4876669; 486605, 4876666; 486606, 4876654; 486605, 4876640.

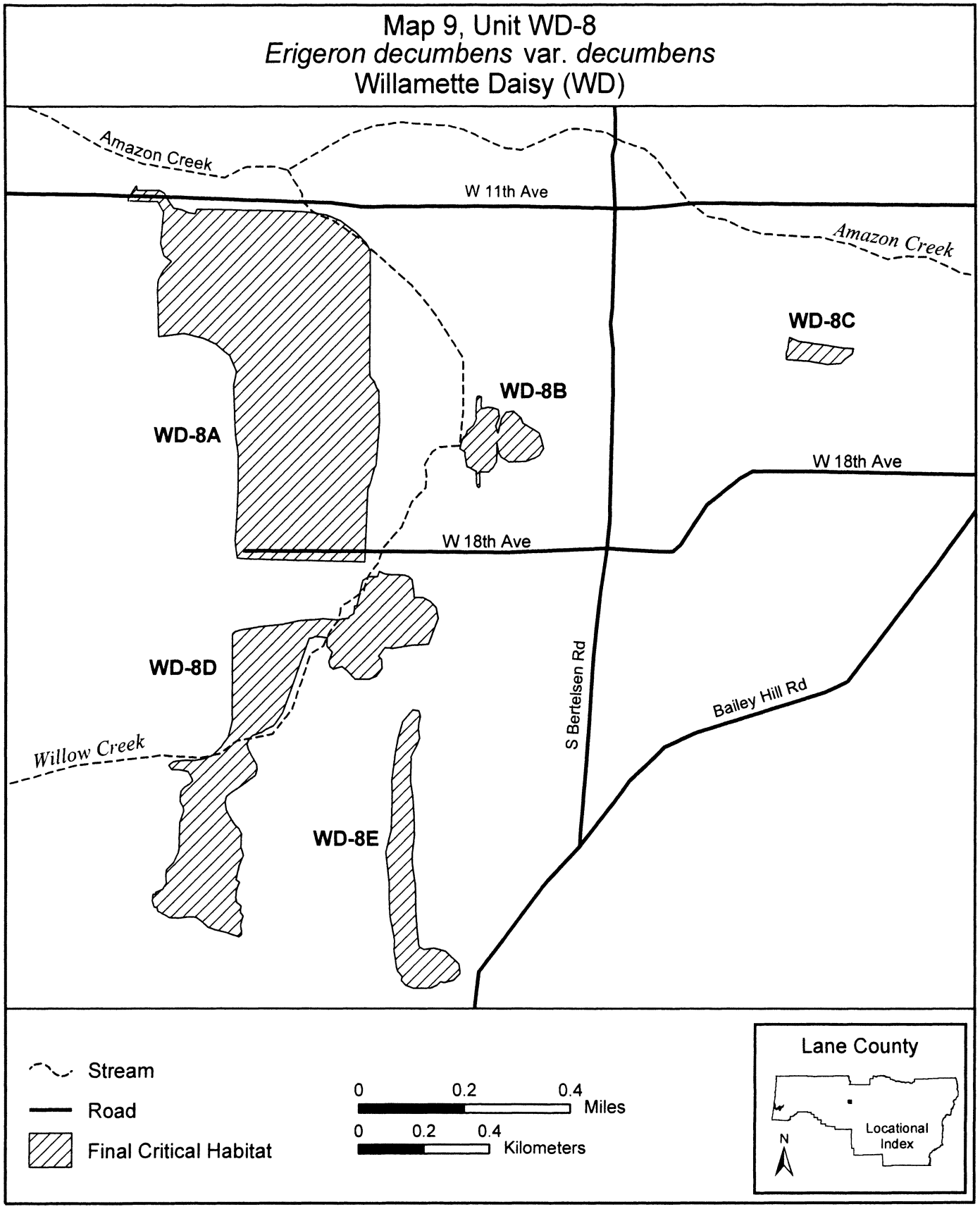
(iii) Unit 8C (WD–8C): 487695, 4876766; 487655, 4876763; 487598, 4876773; 487547, 4876776; 487531, 4876778; 487530, 4876798; 487535, 4876810; 487540, 4876843; 487567, 4876831; 487597, 4876828; 487623, 4876823; 487647, 4876820; 487687, 4876814; 487710, 4876811; 487734, 4876809; 487730, 4876793; 487708, 4876778; 487695, 4876766.

(iv) Unit 8D (WD–8D): 486312, 4876132; 486334, 4876130; 486354, 4876130; 486373, 4876128; 486385, 4876125; 486397, 4876116; 486401, 4876077; 486401, 4876062; 486428, 4876063; 486453, 4876049; 486469, 4876031; 486475, 4875999; 486445, 4875922; 486395, 4875920; 486336, 4875909; 486315, 4875912; 486294, 4875885; 486303, 4875877; 486304, 4875848; 486288, 4875827; 486264, 4875816; 486223, 4875817; 486199, 4875842; 486181, 4875854; 486167, 4875850; 486155, 4875847; 486146, 4875854; 486143, 4875870; 486148, 4875885; 486154, 4875898; 486137, 4875916; 486136, 4875925; 486137, 4875941; 486121, 4875943; 486100, 4875945; 486093, 4875941; 486082, 4875939; 486003, 4875714; 485990, 4875696; 485981, 4875684; 485974, 4875676; 485955, 4875666; 485939, 4875656; 485912, 4875647; 485902, 4875639; 485895, 4875620; 485899, 4875606; 485904, 4875594; 485915, 4875575; 485924, 4875559; 485924, 4875543; 485920, 4875526; 485906, 4875516; 485885, 4875499; 485852, 4875477; 485832, 4875461; 485827, 4875446; 485830, 4875423; 485841, 4875400; 485858, 4875375; 485869, 4875364; 485878, 4875349; 485876, 4875339; 485875, 4875309; 485880, 4875299; 485883, 4875283; 485877, 4875269; 485871, 4875255; 485865, 4875234; 485862, 4875211; 485862, 4875210; 485871, 4875203; 485867, 4875194; 485862, 4875177; 485861, 4875157; 485863, 4875143; 485877, 4875132; 485875, 4875121; 485875, 4875112; 485883, 4875101; 485875, 4875077; 485875, 4875069; 485878, 4875055; 485878, 4875045; 485871, 4875038; 485852, 4875045; 485827, 4875053; 485803, 4875059; 485777, 4875068; 485754, 4875087; 485740, 4875098; 485723, 4875099; 485706, 4875097; 485686, 4875096; 485665, 4875097; 485657, 4875098; 485623, 4875117; 485622, 4875126; 485613, 4875129; 485608, 4875144; 485607, 4875147; 485610, 4875167; 485619, 4875168; 485618, 4875173; 485638, 4875182; 485650, 4875199; 485648, 4875223; 485650, 4875241; 485671, 4875264; 485685, 4875291; 485688, 4875304; 485690, 4875382; 485701, 4875417; 485700, 4875429; 485692, 4875447; 485691, 4875459; 485694, 4875478; 485703, 4875488; 485718, 4875497; 485729, 4875509; 485727, 4875518; 485715, 4875537; 485687, 4875543; 485667, 4875543; 485657, 4875556; 485671, 4875567; 485688, 4875570; 485708, 4875571; 485735, 4875571; 485760, 4875576; 485789, 4875586; 485817, 4875614; 485837, 4875642; 485846, 4875674; 485850, 4875691; 485850, 4875952; 485858, 4875959; 485877, 4875965; 485928, 4875973; 486003, 4875982; 486052, 4875993; 486097, 4875994; 486125, 4875998; 486142, 4875995; 486166, 4875994; 486203, 4876000; 486204, 4876005; 486218, 4876012; 486220, 4876026; 486220, 4876036; 486228, 4876038; 486246, 4876113; 486264, 4876125; 486291, 4876126; 486296, 4876141; 486312, 4876132.

(v) Unit 8E (WD–8E): 486419, 4875009; 486432, 4875002; 486464, 4875005; 486499, 4874996; 486540, 4874957; 486542, 4874941; 486543, 4874928; 486523, 4874907; 486522, 4874907; 486495, 4874901; 486485, 4874903; 486482, 4874900; 486475, 4874893; 486454, 4874883; 486401, 4874883; 486379, 4874893; 486365, 4874907; 486367, 4874918; 486360, 4874928; 486354, 4874935; 486350, 4874948; 486349, 4874964; 486343, 4874996; 486343, 4875029; 486329, 4875101; 486327, 4875156; 486327, 4875203; 486318, 4875294; 486333, 4875362; 486336, 4875470; 486335, 4875513; 486347, 4875595; 486355, 4875644; 486368, 4875689; 486398, 4875724; 486417, 4875722; 486421, 4875705; 486417, 4875683; 486415, 4875666; 486419, 4875638; 486409, 4875612; 486394, 4875582; 486392, 4875509; 486398, 4875465; 486402, 4875400; 486404, 4875343; 486397, 4875292; 486397, 4875264; 486406, 4875197; 486408, 4875161; 486409, 4875120; 486413, 4875059; 486416, 4875027; 486417, 4875019; 486419, 4875009.

(vi) Note: Map 9 (Unit 8 for *Erigeron decumbens* var. *decumbens* (WD–8)) follows:

BILLING CODE 4310–55–P


Map 9, Unit WD-8
Erigeron decumbens var. decumbens
Willamette Daisy (WD)
Amazon Creek
W 11th Ave
Amazon Creek
WD-8C
WD-8B
WD-8A
W 18th Ave
W 18th Ave
WD-8D
S Bertelsen Rd
Bailey Hill Rd
Willow Creek
WD-8E
Stream
Road
Final Critical Habitat
0 0.2 0.4 Miles
0 0.2 0.4 Kilometers
Lane County
Locational Index
N

BILLING CODE 4310–55–C

(14) Unit 9 for *Erigeron decumbens* var. *decumbens* (WD–9), Lane County, Oregon.

(i) Unit 9A (WD–9A): 482419, 4875157; 482433, 4875154; 482454, 4875162; 482478, 4875158; 482496, 4875142; 482509, 4875124; 482504, 4875110; 482515, 4875097; 482526, 4875086; 482525, 4875072; 482519, 4875066; 482529, 4875056; 482532, 4875040; 482545, 4875028; 482556, 4875030; 482568, 4875031; 482626, 4875009; 482629, 4874992; 482636, 4874983; 482629, 4874972; 482632, 4874952; 482640, 4874945; 482635, 4874939; 482635, 4874898; 482653, 4874892; 482671, 4874893; 482682, 4874904; 482700, 4874893; 482716, 4874892; 482739, 4874889; 482756, 4874875; 482773, 4874872; 482781, 4874859; 482772, 4874853; 482752, 4874852; 482749, 4874810; 482762, 4874804; 482762, 4874795; 482751, 4874790; 482747, 4874782; 482759, 4874776; 482769, 4874768; 482792, 4874770; 482822, 4874745; 482818, 4874718; 482833, 4874707; 482853, 4874701; 482870, 4874682; 482880, 4874667; 482898, 4874283; 482886, 4874262; 482866, 4874250; 482850, 4874230; 482840, 4874202; 482843, 4874175; 482848, 4874143; 482831, 4874127; 482819, 4874104; 482811, 4874080; 482772, 4874052; 482735, 4874031; 482728, 4874017; 482725, 4873993; 482715, 4873979; 482701, 4873966; 482371, 4873978; 482338, 4873981; 482305, 4873976; 482243, 4873963; 482227, 4873968; 482236, 4873984; 482296, 4874007; 482308, 4874028; 482365, 4874052; 482381, 4874074; 482409, 4874087; 482432, 4874100; 482429, 4874112; 482412, 4874116; 482401, 4874102; 482384, 4874103; 482373, 4874090; 482362, 4874085; 482359, 4874074; 482339, 4874069; 482328, 4874073; 482322, 4874065; 482312, 4874076; 482315, 4874085; 482329, 4874094; 482351, 4874096; 482461, 4874167; 482445, 4874211; 482441, 4874229; 482438, 4874247; 482451, 4874269; 482449, 4874289; 482435, 4874303; 482448, 4874321; 482466, 4874321; 482473, 4874339; 482483, 4874338; 482508, 4874311; 482509, 4874293; 482534, 4874303; 482586, 4874349; 482591, 4874373; 482598, 4874362; 482616, 4874367; 482620, 4874381; 482609, 4874402; 482608, 4874420; 482600, 4874437; 482599, 4874448; 482609, 4874441; 482618, 4874442; 482628, 4874451; 482631, 4874471; 482608, 4874466; 482613, 4874486; 482623, 4874489; 482629, 4874504; 482625, 4874514; 482626, 4874524; 482639, 4874531; 482636, 4874540; 482631, 4874555; 482640, 4874567; 482622, 4874604; 482625, 4874641; 482591, 4874698; 482570, 4874705; 482567, 4874723; 482563, 4874736; 482537, 4874761; 482538, 4874773; 482524, 4874785; 482506, 4874780; 482473, 4874804; 482429, 4874833; 482376, 4874861; 482376, 4875220; 482431, 4875221; 482407, 4875176; 482419, 4875157.

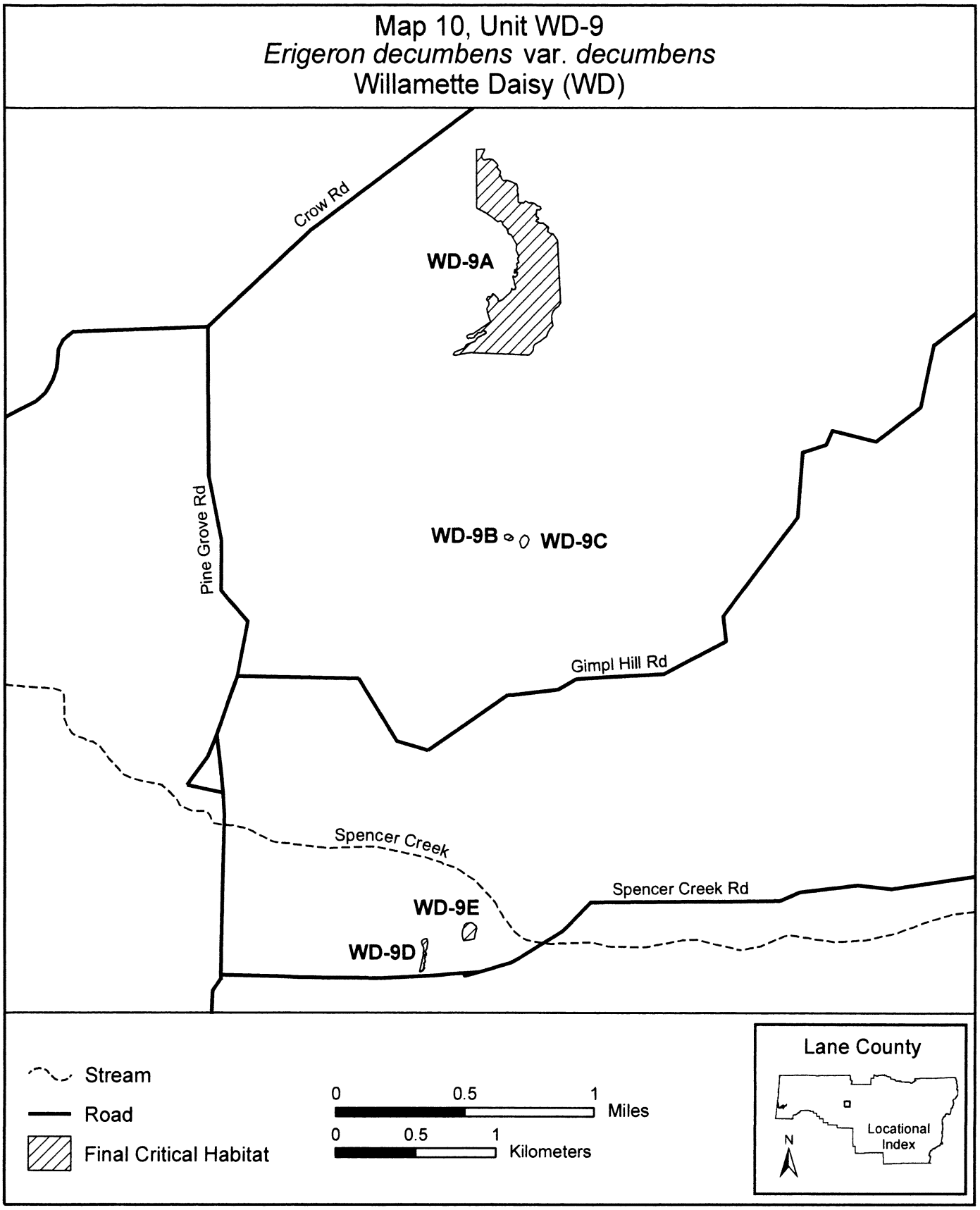
(ii) Unit 9B (WD–9B): 482595, 4872832; 482581, 4872828; 482575, 4872828; 482571, 4872828; 482559, 4872835; 482548, 4872841; 482549, 4872860; 482568, 4872866; 482570, 4872865; 482588, 4872857; 482600, 4872844; 482595, 4872832.

(iii) Unit 9C (WD–9C): 482679, 4872790; 482668, 4872783; 482654, 4872785; 482645, 4872810; 482644, 4872821; 482654, 4872845; 482670, 4872860; 482689, 4872856; 482699, 4872834; 482689, 4872804; 482679, 4872790.

(iv) Unit 9D (WD–9D): 482043, 4870174; 482032, 4870168; 482021, 4870170; 482023, 4870180; 482031, 4870210; 482044, 4870268; 482047, 4870306; 482045, 4870320; 482038, 4870333; 482034, 4870350; 482039, 4870362; 482049, 4870370; 482059, 4870374; 482068, 4870373; 482070, 4870364; 482072, 4870350; 482070, 4870326; 482068, 4870308; 482062, 4870303; 482058, 4870291; 482064, 4870284; 482063, 4870270; 482055, 4870266; 482058, 4870256; 482052, 4870252; 482055, 4870244; 482058, 4870235; 482055, 4870224; 482046, 4870222; 482052, 4870210; 482045, 4870199; 482047, 4870193; 482054, 4870192; 482051, 4870187; 482043, 4870174.

(v) Unit 9E (WD–9E): 482315, 4870363; 482297, 4870361; 482292, 4870377; 482285, 4870392; 482285, 4870408; 482285, 4870413; 482292, 4870429; 482296, 4870440; 482299, 4870452; 482301, 4870459; 482308, 4870465; 482324, 4870472; 482342, 4870473; 482356, 4870468; 482361, 4870461; 482374, 4870450; 482377, 4870438; 482373, 4870421; 482368, 4870408; 482366, 4870391; 482362, 4870374; 482349, 4870369; 482332, 4870366; 482315, 4870363.

(vi) Note: Map 10 (Unit 9 for *Erigeron decumbens* var. *decumbens* (WD–9)) follows:


Map 10, Unit WD-9
Erigeron decumbens var. decumbens
Willamette Daisy (WD)
Crow Rd
WD-9A
Pine Grove Rd
WD-9B
WD-9C
Gimpl Hill Rd
Spencer Creek
Spencer Creek Rd
WD-9E
WD-9D
Stream
Road
Final Critical Habitat
0 0.5 1
Miles
0 0.5 1
Kilometers
Lane County
Locational Index
N

* * * * *

Family Fabaceae: *Lupinus sulphureus* ssp. *kincaidii* (Kincaid's lupine).

(1) Critical habitat units are depicted for Benton, Lane, Polk, and Yamhill Counties, Oregon, and Lewis County, Washington, on the maps below.

(2) The primary constituent elements of critical habitat for the *Lupinus sulphureus* ssp. *kincaidii* are the habitat components that provide:

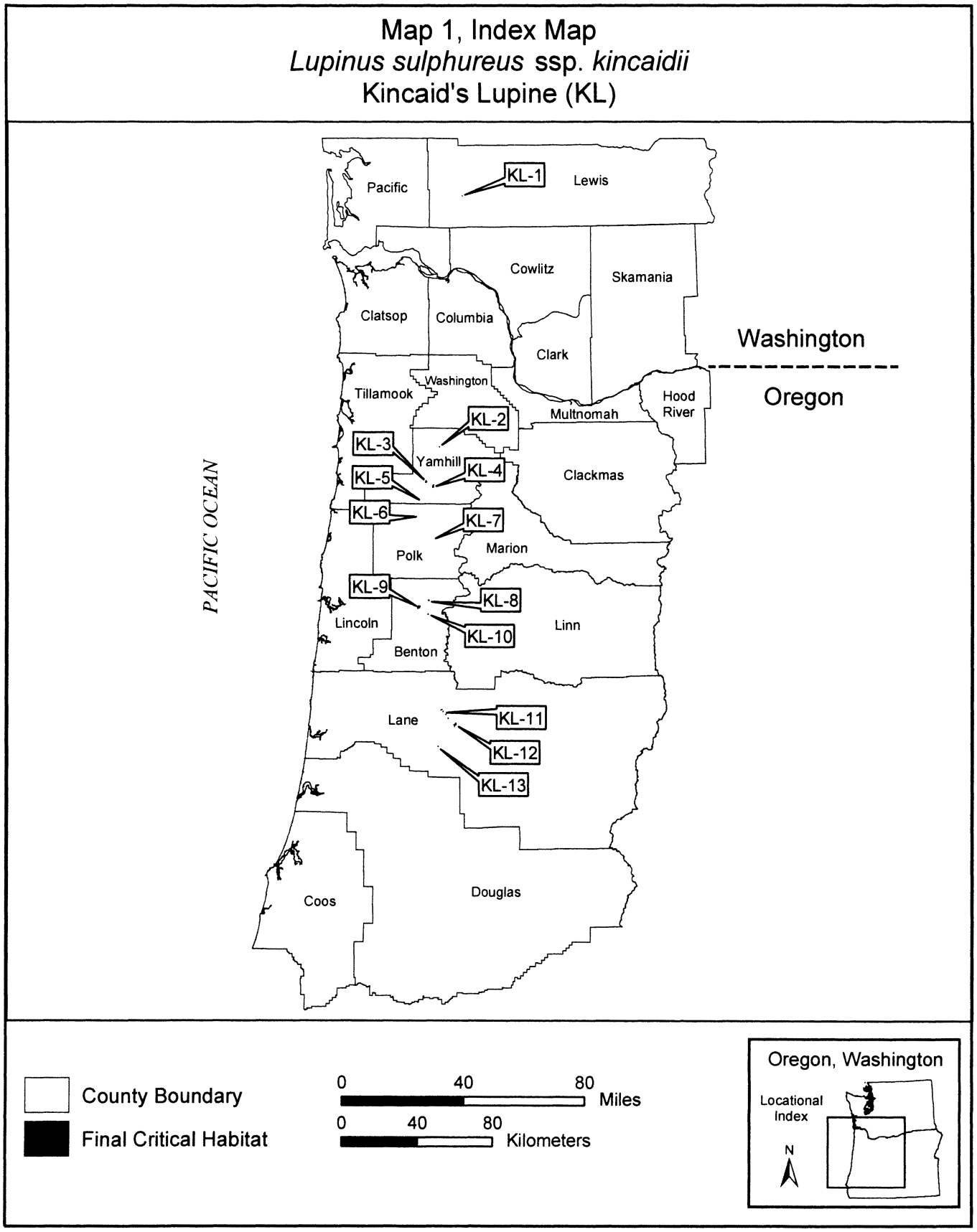
(i) Early seral upland prairie, or oak savanna habitat with a mosaic of low-growing grasses and forbs, and spaces to establish seedlings or new vegetative growth; an absence of dense canopy vegetation; and undisturbed subsoils.

(ii) The presence of insect outcrossing pollinators, such as *Bombus mixtus* and *B. californicus,* with unrestricted movement between existing lupine patches.

(3) Critical habitat does not include man-made structures (such as buildings, aqueducts, airports, roads, and other paved areas, and the land on which such structures are located) existing on the effective date of this rule and not containing one or more of the primary constituent elements.

(4) *Critical Habitat Map Units.* Critical habitat units are described below. Data layers defining map units were created using USGS 24,000 scale Digital Ortho Quads captured in 2000. Critical habitat units were then mapped using UTM zone 10, NAD 1983 coordinates.

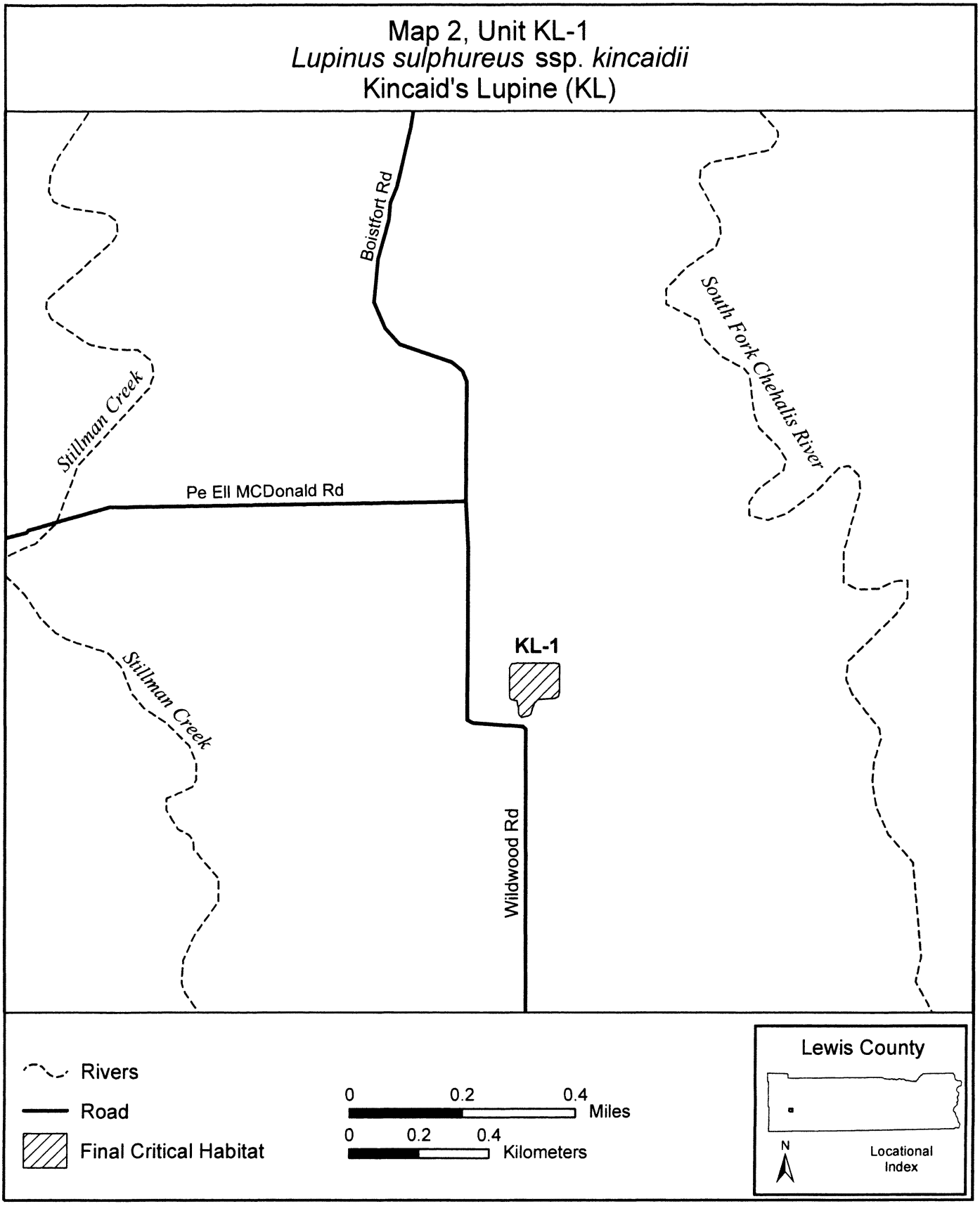
(5) Note: Map 1 (Index map for *Lupinus sulphureus* ssp. *kincaidii*) follows:


Map 1, Index Map
Lupinus sulphureus ssp. kincaidii
Kincaid's Lupine (KL)
PACIFIC OCEAN
Pacific
Lewis
Cowlitz
Skamania
Clatsop
Columbia
Clark
Washington
Oregon
Tillamook
Washington
Multnomah
Hood River
Yamhill
Clackmas
Polk
Marion
Lincoln
Linn
Benton
Lane
Coos
Douglas
KL-1
KL-2
KL-3
KL-4
KL-5
KL-6
KL-7
KL-8
KL-9
KL-10
KL-11
KL-12
KL-13
County Boundary
Final Critical Habitat
0 40 80 Miles
0 40 80 Kilometers
Oregon, Washington
Locational Index
N

(6) Unit 1 for *Lupinus sulphureus* ssp. *kincaidii* (KL–1), Lewis County, Washington.

(i) Unit 1 (KL–1): 490109, 5152126; 490102, 5152121; 490098, 5152121; 490084, 5152118; 490080, 5152122; 490076, 5152130; 490076, 5152146; 490073, 5152152; 490073, 5152156; 490072, 5152164; 490056, 5152167; 490051, 5152171; 490050, 5152178; 490050, 5152196; 490050, 5152257; 490056, 5152268; 490072, 5152271; 490180, 5152271; 490189, 5152268; 490192, 5152263; 490192, 5152189; 490188, 5152176; 490177, 5152171; 490165, 5152171; 490131, 5152168; 490124, 5152161; 490121, 5152160; 490119, 5152148; 490115, 5152144; 490114, 5152137; 490109, 5152126.

(ii) Note: Map 2 (Unit 1 of *Lupinus sulphureus* ssp. *kincaidii* (KL–1)) follows:

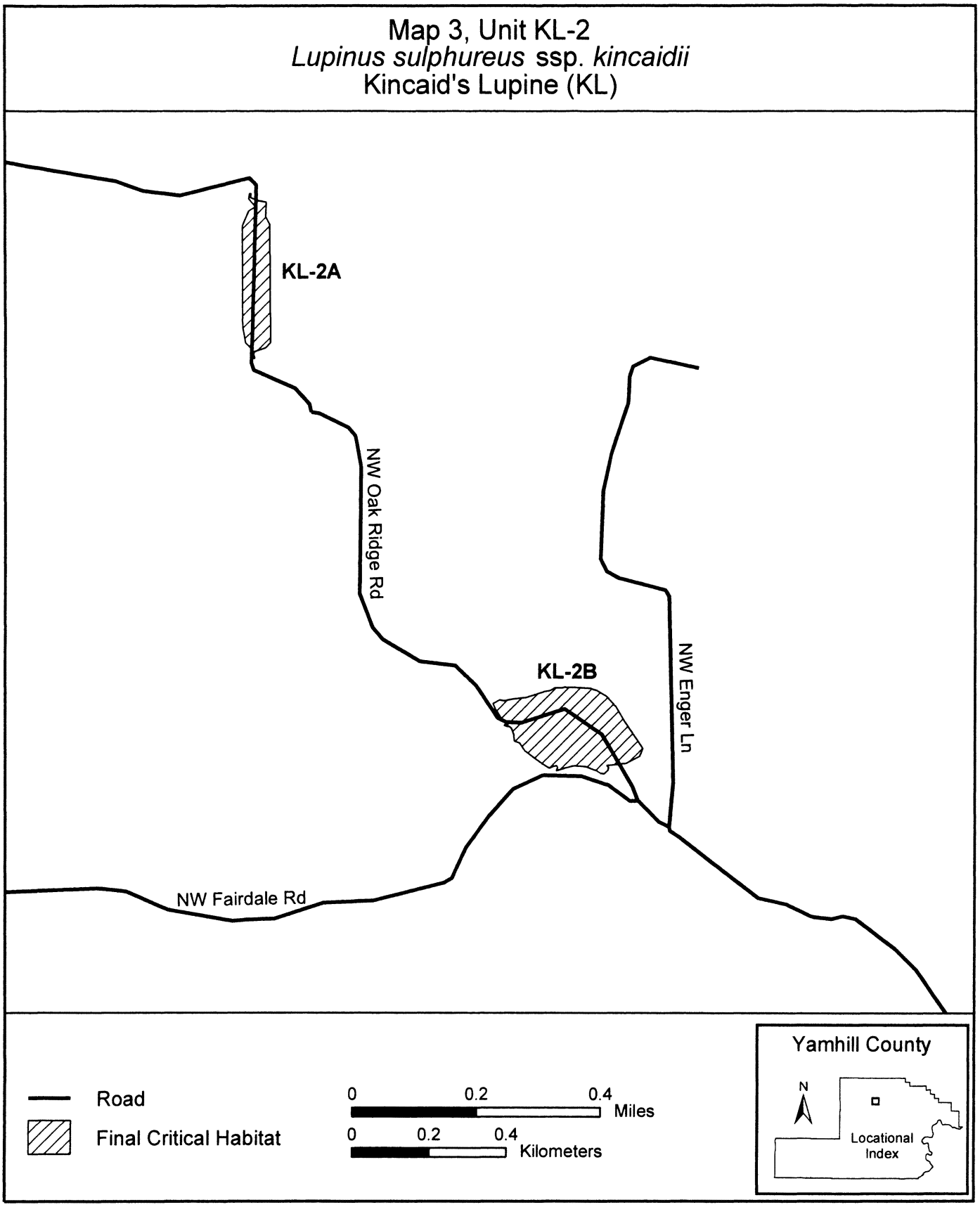

Map 2, Unit KL-1
Lupinus sulphureus ssp. kincaidii
Kincaid's Lupine (KL)
Boistfort Rd
South Fork Chehalis River
Stillman Creek
Pe Ell MCDonald Rd
KL-1
Stillman Creek
Wildwood Rd
Rivers
Road
Final Critical Habitat
0 0.2 0.4 Miles
0 0.2 0.4 Kilometers
Lewis County
N
Locational Index

(7) Unit 2 for *Lupinus sulphureus* ssp. *kincaidii* (KL–2) Yamhill County, Oregon.

(i) Unit 2A (KL–2A): 477069, 5022493; 477070, 5022487; 477067, 5022487; 477065, 5022493; 477063, 5022498; 477063, 5022510; 477046, 5022526; 477039, 5022566; 477039, 5022576; 477038, 5022585; 477039, 5022591; 477039, 5022824; 477055, 5022862; 477073, 5022873; 477056, 5022893; 477056, 5022901; 477057, 5022907; 477061, 5022907; 477060, 5022896; 477081, 5022888; 477101, 5022884; 477099, 5022848; 477110, 5022829; 477111, 5022528; 477098, 5022513; 477069, 5022504; 477067, 5022498; 477069, 5022493.

(ii) Unit 2B (KL–2B): 477876, 5021643; 477881, 5021641; 477902, 5021642; 477941, 5021640; 477957, 5021634; 477983, 5021620; 478008, 5021592; 478031, 5021554; 478078, 5021484; 478068, 5021464; 478035, 5021445; 477996, 5021442; 477983, 5021440; 477989, 5021435; 477986, 5021427; 477979, 5021419; 477968, 5021420; 477956, 5021427; 477931, 5021437; 477898, 5021440; 477878, 5021434; 477854, 5021427; 477857, 5021435; 477855, 5021439; 477846, 5021438; 477836, 5021433; 477812, 5021449; 477790, 5021465; 477773, 5021478; 477759, 5021499; 477745, 5021504; 477743, 5021519; 477744, 5021519; 477737, 5021537; 477732, 5021541; 477731, 5021541; 477731, 5021541; 477731, 5021541; 477731, 5021541; 477730, 5021541; 477730, 5021541; 477729, 5021541; 477727, 5021541; 477727, 5021541; 477727, 5021541; 477727, 5021541; 477727, 5021541; 477726, 5021542; 477726, 5021542; 477726, 5021542; 477726, 5021542; 477726, 5021542; 477726, 5021542; 477726, 5021542; 477726, 5021542; 477726, 5021542; 477726, 5021542; 477725, 5021543; 477724, 5021543; 477724, 5021543; 477724, 5021543; 477724, 5021543; 477723, 5021543; 477723, 5021543; 477723, 5021543; 477722, 5021543; 477722, 5021544; 477721, 5021544; 477720, 5021543; 477720, 5021543; 477720, 5021543; 477720, 5021543; 477720, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477719, 5021543; 477718, 5021543; 477718, 5021543; 477718, 5021543; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021544; 477718, 5021545; 477718, 5021545; 477718, 5021545; 477718, 5021545; 477718, 5021545; 477719, 5021545; 477719, 5021545; 477719, 5021545; 477719, 5021545; 477719, 5021545; 477719, 5021545; 477719, 5021545; 477719, 5021545; 477720, 5021545; 477720, 5021545; 477720, 5021545; 477721, 5021546; 477721, 5021546; 477721, 5021546; 477721, 5021546; 477721, 5021546; 477721, 5021546; 477721, 5021546; 477722, 5021546; 477722, 5021546; 477722, 5021546; 477722, 5021546; 477722, 5021546; 477723, 5021545; 477723, 5021545; 477723, 5021545; 477723, 5021545; 477723, 5021545; 477724, 5021545; 477725, 5021544; 477725, 5021544; 477725, 5021544; 477725, 5021544; 477726, 5021544; 477726, 5021544; 477726, 5021544; 477726, 5021544; 477726, 5021544; 477726, 5021544; 477727, 5021543; 477728, 5021543; 477729, 5021543; 477715, 5021554; 477698, 5021582; 477695, 5021586; 477695, 5021589; 477690, 5021600; 477691, 5021601; 477707, 5021609; 477719, 5021607; 477739, 5021612; 477777, 5021616; 477823, 5021631; 477839, 5021635; 477849, 5021641; 477867, 5021641; 477876, 5021643.

(iii) Note: Map 3 (Unit 2 for *Lupinus sulphureus* ssp. *kincaidii* (KL–2)) follows:


Map 3, Unit KL-2
Lupinus sulphureus ssp. kincaidii
Kincaid's Lupine (KL)
KL-2A
NW Oak Ridge Rd
KL-2B
NW Enger Ln
NW Fairdale Rd
Road
Final Critical Habitat
0 0.2 0.4 Miles
0 0.2 0.4 Kilometers
Yamhill County
N
Locational Index

(8) Units 3 and 4 for *Lupinus sulphureus* ssp. *kincaidii* (KL–3 and KL–4), Yamhill County, Oregon.

(i) Unit 3 (KL–3): 470959, 5003231; 470965, 5003226; 470972, 5003226; 470984, 5003224; 470992, 5003223; 471004, 5003220; 471012, 5003218; 471016, 5003215; 471018, 5003209; 471014, 5003202; 471011, 5003200; 471006, 5003198; 470998, 5003191; 470991, 5003187; 470988, 5003186; 470981, 5003180; 470977, 5003176; 470973, 5003168; 470970, 5003165; 470968, 5003159; 470968, 5003151; 470968, 5003132; 470968, 5003123; 470967, 5003109; 470965, 5003099; 470962, 5003090; 470961, 5003075; 470965, 5003070; 470966, 5003065; 470967, 5003055; 470965, 5003048; 470969, 5003041; 470974, 5003036; 470979, 5003036; 470984, 5003035; 470986, 5003035; 470990, 5003032; 470995, 5003027; 470998, 5003022; 470998, 5003015; 470998, 5003010; 470994, 5003007; 470988, 5003006; 470977, 5003006; 470973, 5003006; 470963, 5003004; 470957, 5003001; 470949, 5002996; 470947, 5002994; 470945, 5002987; 470944, 5002981; 470946, 5002976; 470949, 5002967; 470958, 5002964; 470965, 5002964; 470973, 5002962; 470981, 5002958; 470988, 5002955; 470994, 5002951; 470999, 5002946; 471004, 5002937; 471005, 5002932; 471010, 5002924; 471012, 5002918; 471010, 5002913; 471011, 5002902; 471003, 5002893; 470992, 5002886; 470982, 5002892; 470966, 5002893; 470956, 5002901; 470945, 5002909; 470932, 5002914; 470925, 5002911; 470914, 5002904; 470905, 5002901; 470893, 5002900; 470876, 5002901; 470868, 5002895; 470867, 5002887; 470879, 5002867; 470888, 5002866; 470935, 5002861; 470970, 5002859; 470988, 5002861; 470991, 5002853; 470998, 5002837; 471002, 5002828; 471012, 5002821; 471016, 5002816; 471015, 5002796; 471017, 5002785; 471017, 5002776; 471016, 5002766; 471015, 5002751; 471014, 5002740; 471012, 5002737; 471008, 5002734; 470998, 5002731; 470988, 5002734; 470981, 5002737; 470975, 5002739; 470967, 5002744; 470959, 5002745; 470951, 5002747; 470943, 5002747; 470929, 5002745; 470924, 5002744; 470917, 5002740; 470908, 5002741; 470894, 5002743; 470884, 5002741; 470878, 5002739; 470871, 5002737; 470865, 5002735; 470861, 5002735; 470853, 5002735; 470843, 5002736; 470834, 5002737; 470826, 5002742; 470819, 5002745; 470814, 5002751; 470811, 5002758; 470811, 5002764; 470809, 5002774; 470805, 5002784; 470801, 5002791; 470797, 5002795; 470787, 5002802; 470780, 5002802; 470772, 5002802; 470760, 5002805; 470752, 5002811; 470750, 5002818; 470747, 5002830; 470746, 5002840; 470744, 5002861; 470743, 5002874; 470740, 5002886; 470738, 5002896; 470735, 5002904; 470731, 5002910; 470729, 5002911; 470716, 5002892; 470717, 5002872; 470704, 5002848; 470692, 5002827; 470696, 5002824; 470691, 5002816; 470690, 5002804; 470692, 5002800; 470703, 5002799; 470698, 5002794; 470700, 5002783; 470695, 5002776; 470691, 5002769; 470690, 5002762; 470695, 5002753; 470682, 5002753; 470682, 5002723; 470692, 5002723; 470689, 5002717; 470691, 5002709; 470694, 5002702; 470684, 5002700; 470675, 5002699; 470665, 5002704; 470657, 5002701; 470651, 5002704; 470645, 5002701; 470640, 5002694; 470623, 5002696; 470617, 5002697; 470608, 5002697; 470604, 5002707; 470589, 5002716; 470582, 5002715; 470580, 5002725; 470564, 5002726; 470563, 5002707; 470555, 5002695; 470553, 5002676; 470548, 5002670; 470553, 5002660; 470562, 5002655; 470562, 5002646; 470557, 5002635; 470564, 5002625; 470557, 5002608; 470514, 5002689; 470514, 5002732; 470561, 5002844; 470604, 5002950; 470685, 5003149; 470688, 5003164; 470693, 5003185; 470725, 5003387; 470725, 5003399; 470728, 5003400; 470728, 5003406; 470733, 5003407; 470738, 5003441; 470741, 5003444; 470749, 5003447; 470755, 5003446; 470764, 5003444; 470769, 5003441; 470775, 5003430; 470778, 5003422; 470780, 5003416; 470782, 5003411; 470787, 5003400; 470790, 5003393; 470794, 5003387; 470797, 5003383; 470810, 5003372; 470817, 5003367; 470829, 5003362; 470836, 5003356; 470841, 5003352; 470852, 5003349; 470856, 5003345; 470858, 5003343; 470869, 5003337; 470878, 5003335; 470891, 5003328; 470895, 5003325; 470901, 5003320; 470914, 5003313; 470925, 5003301; 470930, 5003295; 470937, 5003286; 470945, 5003282; 470948, 5003277; 470948, 5003271; 470948, 5003260; 470951, 5003247; 470955, 5003235; 470959, 5003231.

(ii) Unit 4A (KL–4A) exterior unit perimeter: 474615, 5001190; 474619, 5001179; 474629, 5001179; 474633, 5001187; 474643, 5001191; 474649, 5001180; 474661, 5001182; 474660, 5001194; 474661, 5001204; 474674, 5001202; 474684, 5001197; 474697, 5001197; 474693, 5001208; 474683, 5001213; 474676, 5001218; 474679, 5001222; 474681, 5001232; 474673, 5001237; 474677, 5001244; 474686, 5001234; 474694, 5001233; 474700, 5001239; 474709, 5001240; 474722, 5001247; 474727, 5001252; 474743, 5001250; 474760, 5001248; 474768, 5001255; 474770, 5001243; 474782, 5001241; 474794, 5001243; 474801, 5001241; 474816, 5001244; 474827, 5001245; 474831, 5001243; 474841, 5001243; 474853, 5001237; 474867, 5001233; 474886, 5001233; 474900, 5001233; 474917, 5001224; 474923, 5001216; 474924, 5001203; 474924, 5001193; 474929, 5001179; 474931, 5001171; 474935, 5001159; 474936, 5001145; 474938, 5001124; 474932, 5001106; 474902, 5000968; 474883, 5000970; 474853, 5000972; 474815, 5000967; 474779, 5000957; 474730, 5000946; 474664, 5000938; 474644, 5000919; 474624, 5000912; 474602, 5000904; 474581, 5000888; 474553, 5000899; 474534, 5000933; 474522, 5000977; 474511, 5001003; 474499, 5001009; 474486, 5001007; 474476, 5000992; 474456, 5000976; 474440, 5000953; 474425, 5000935; 474421, 5000908; 474422, 5000885; 474424, 5000859; 474433, 5000844; 474444, 5000833; 474445, 5000820; 474428, 5000811; 474394, 5000796; 474367, 5000773; 474349, 5000754; 474340, 5000730; 474343, 5000710; 474351, 5000695; 474355, 5000680; 474358, 5000663; 474367, 5000633; 474373, 5000611; 474377, 5000592; 474364, 5000563; 474353, 5000570; 474339, 5000588; 474332, 5000595; 474325, 5000590; 474325, 5000578; 474323, 5000560; 474323, 5000544; 474328, 5000535; 474332, 5000526; 474324, 5000515; 474317, 5000501; 474333, 5000502; 474333, 5000495; 474339, 5000481; 474337, 5000457; 474329, 5000427; 474318, 5000400; 474316, 5000387; 474329, 5000373; 474361, 5000353; 474372, 5000340; 474379, 5000320; 474381, 5000302; 474369, 5000286; 474360, 5000283; 474352, 5000280; 474345, 5000275; 474342, 5000271; 474334, 5000256; 474333, 5000234; 474324, 5000206; 474320, 5000159; 474320, 5000133; 474329, 5000094; 474339, 5000068; 474325, 5000064; 474320, 5000070; 474312, 5000070; 474311, 5000064; 474300, 5000057; 474282, 5000050; 474270, 5000046; 474267, 5000055; 474260, 5000056; 474256, 5000051; 474251, 5000055; 474247, 5000059; 474237, 5000061; 474230, 5000068; 474230, 5000079; 474229, 5000089; 474231, 5000094; 474229, 5000099; 474231, 5000108; 474231, 5000123; 474230, 5000155; 474233, 5000175; 474238, 5000186; 474234, 5000193; 474241, 5000196;

474248, 5000197; 474251, 5000208; 474251, 5000218; 474246, 5000234; 474238, 5000244; 474224, 5000261; 474211, 5000273; 474199, 5000278;

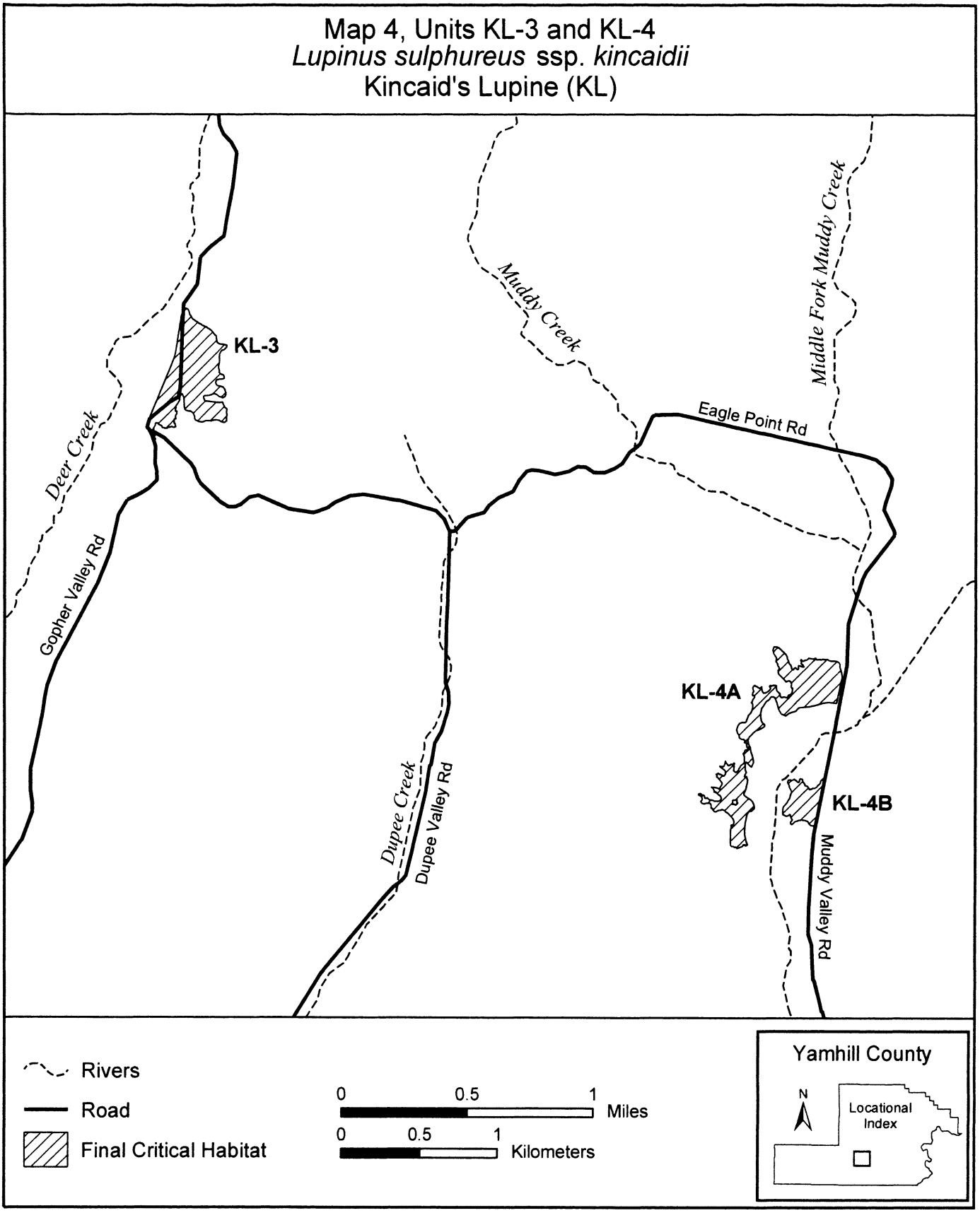
474193, 5000286; 474182, 5000290; 474176, 5000294; 474170, 5000289; 474150, 5000285; 474143, 5000280; 474133, 5000279; 474125, 5000281; 474118, 5000291; 474115, 5000301; 474109, 5000298; 474108, 5000308; 474108, 5000316; 474105, 5000328; 474097, 5000332; 474086, 5000333; 474076, 5000332; 474062, 5000328; 474051, 5000331; 474041, 5000341; 474043, 5000346; 474051, 5000352; 474050, 5000364; 474043, 5000376; 474038, 5000378; 474032, 5000381; 474025, 5000387; 474029, 5000391; 474042, 5000393; 474043, 5000388; 474049, 5000383; 474055, 5000383; 474060, 5000383; 474066, 5000376; 474067, 5000368; 474072, 5000363; 474077, 5000366; 474084, 5000367; 474088, 5000361; 474091, 5000357; 474101, 5000355; 474106, 5000351; 474117, 5000352; 474121, 5000348; 474128, 5000345; 474141, 5000347; 474152, 5000345; 474165, 5000349; 474172, 5000355; 474173, 5000362; 474171, 5000374; 474166, 5000381; 474155, 5000386; 474146, 5000393; 474140, 5000404; 474136, 5000397; 474133, 5000406; 474124, 5000402; 474126, 5000408; 474125, 5000416; 474121, 5000425; 474107, 5000436; 474119, 5000434; 474130, 5000434; 474144, 5000431; 474156, 5000425; 474167, 5000419; 474165, 5000431; 474172, 5000438; 474178, 5000454; 474176, 5000465; 474166, 5000478; 474154, 5000489; 474149, 5000497; 474142, 5000500; 474146, 5000512; 474137, 5000519; 474149, 5000520; 474151, 5000527; 474161, 5000515; 474167, 5000518; 474177, 5000509; 474188, 5000505; 474196, 5000515; 474198, 5000525; 474196, 5000538; 474186, 5000546; 474177, 5000555; 474161, 5000569; 474174, 5000565; 474186, 5000565; 474191, 5000577; 474193, 5000588; 474196, 5000603; 474200, 5000592; 474212, 5000579; 474214, 5000572; 474217, 5000571; 474228, 5000577; 474233, 5000580; 474243, 5000578; 474248, 5000583; 474252, 5000589; 474258, 5000586; 474253, 5000580; 474251, 5000569; 474250, 5000540; 474265, 5000528; 474280, 5000540; 474281, 5000546; 474284, 5000555; 474289, 5000559; 474297, 5000572; 474311, 5000580; 474318, 5000592; 474318, 5000606; 474318, 5000618; 474319, 5000628; 474314, 5000643; 474311, 5000650; 474318, 5000654; 474320, 5000666; 474328, 5000674; 474335, 5000673; 474347, 5000679; 474349, 5000688; 474337, 5000690; 474333, 5000690; 474334, 5000699; 474331, 5000711; 474329, 5000720; 474319, 5000717; 474321, 5000732; 474313, 5000740; 474303, 5000740; 474287, 5000747; 474283, 5000759; 474281, 5000771; 474274, 5000782; 474268, 5000799; 474276, 5000823; 474285, 5000838; 474301, 5000846; 474312, 5000846; 474323, 5000844; 474331, 5000852; 474337, 5000867; 474338, 5000877; 474344, 5000891; 474357, 5000905; 474362, 5000914; 474367, 5000929; 474370, 5000942; 474372, 5000958; 474369, 5000964; 474361, 5000970; 474369, 5000979; 474370, 5000992; 474380, 5000999; 474384, 5001010; 474375, 5001017; 474368, 5001018; 474370, 5001033; 474378, 5001044; 474374, 5001054; 474372, 5001064; 474376, 5001076; 474383, 5001080; 474393, 5001074; 474401, 5001068; 474413, 5001063; 474421, 5001066; 474425, 5001075; 474427, 5001066; 474430, 5001055; 474433, 5001041; 474438, 5001032; 474456, 5001034; 474467, 5001041; 474477, 5001051; 474485, 5001061; 474477, 5001073; 474482, 5001080; 474486, 5001073; 474493, 5001078; 474501, 5001080; 474507, 5001082; 474520, 5001079; 474519, 5001069; 474522, 5001052; 474526, 5001043; 474536, 5001033; 474542, 5001030; 474545, 5001013; 474551, 5001003; 474566, 5001009; 474571, 5001008; 474586, 5001003; 474594, 5001008; 474595, 5001017; 474610, 5001024; 474617, 5001032; 474622, 5001049; 474624, 5001062; 474616, 5001062; 474613, 5001072; 474616, 5001089; 474610, 5001103; 474599, 5001110; 474591, 5001108; 474581, 5001102; 474574, 5001112; 474537, 5001149; 474531, 5001163; 474531, 5001174; 474540, 5001186; 474536, 5001194; 474526, 5001210; 474531, 5001213; 474524, 5001221; 474516, 5001231; 474521, 5001252; 474510, 5001269; 474501, 5001283; 474496, 5001300; 474499, 5001313; 474506, 5001324; 474529, 5001320; 474539, 5001315; 474549, 5001303; 474552, 5001299; 474571, 5001286; 474582, 5001273; 474588, 5001262; 474589, 5001247; 474594, 5001238; 474596, 5001231; 474599, 5001220; 474604, 5001213; 474610, 5001208; 474614, 5001200; 474615, 5001190;

(iii) Unit 4A (KL–4A) interior unit perimeter: 474245, 5000351; 474242, 5000325; 474250, 5000328; 474258, 5000327; 474263, 5000317; 474270, 5000328; 474280, 5000332; 474272, 5000343; 474274, 5000358; 474266, 5000354; 474252, 5000352; 474245, 5000351.

(iv) Unit 4B (KL–4B): 474825, 5000448; 474804, 5000350; 474787, 5000258; 474783, 5000230; 474782, 5000217; 474779, 5000202; 474772, 5000193; 474754, 5000191; 474739, 5000194; 474729, 5000204; 474723, 5000215; 474716, 5000222; 474702, 5000226; 474685, 5000227; 474669, 5000226; 474658, 5000223; 474640, 5000215; 474629, 5000204; 474621, 5000199; 474613, 5000202; 474609, 5000211; 474612, 5000218; 474617, 5000220; 474623, 5000229; 474615, 5000239; 474610, 5000255; 474610, 5000260; 474607, 5000264; 474598, 5000254; 474589, 5000252; 474580, 5000254; 474563, 5000263; 474564, 5000279; 474562, 5000290; 474566, 5000307; 474570, 5000316; 474581, 5000328; 474590, 5000336; 474598, 5000349; 474605, 5000362; 474611, 5000383; 474616, 5000399; 474618, 5000406; 474614, 5000417; 474604, 5000433; 474603, 5000446; 474597, 5000456; 474592, 5000468; 474596, 5000479; 474607, 5000481; 474619, 5000477; 474628, 5000481; 474638, 5000487; 474643, 5000478; 474647, 5000476; 474660, 5000464; 474667, 5000467; 474669, 5000479; 474671, 5000487; 474677, 5000489; 474687, 5000487; 474693, 5000469; 474698, 5000460; 474705, 5000445; 474719, 5000441; 474728, 5000430; 474731, 5000421; 474741, 5000424; 474751, 5000429; 474766, 5000430; 474779, 5000437; 474785, 5000445; 474792, 5000450; 474801, 5000456; 474803, 5000472; 474813, 5000483; 474823, 5000490; 474830, 5000485; 474830, 5000467; 474825, 5000448.

(v) Note: Map 4 (Units 3 and 4 for *Lupinus sulphureus* ssp. *kincaidii* (KL–3 and KL–4)) follows:

BILLING CODE 4310–55–P



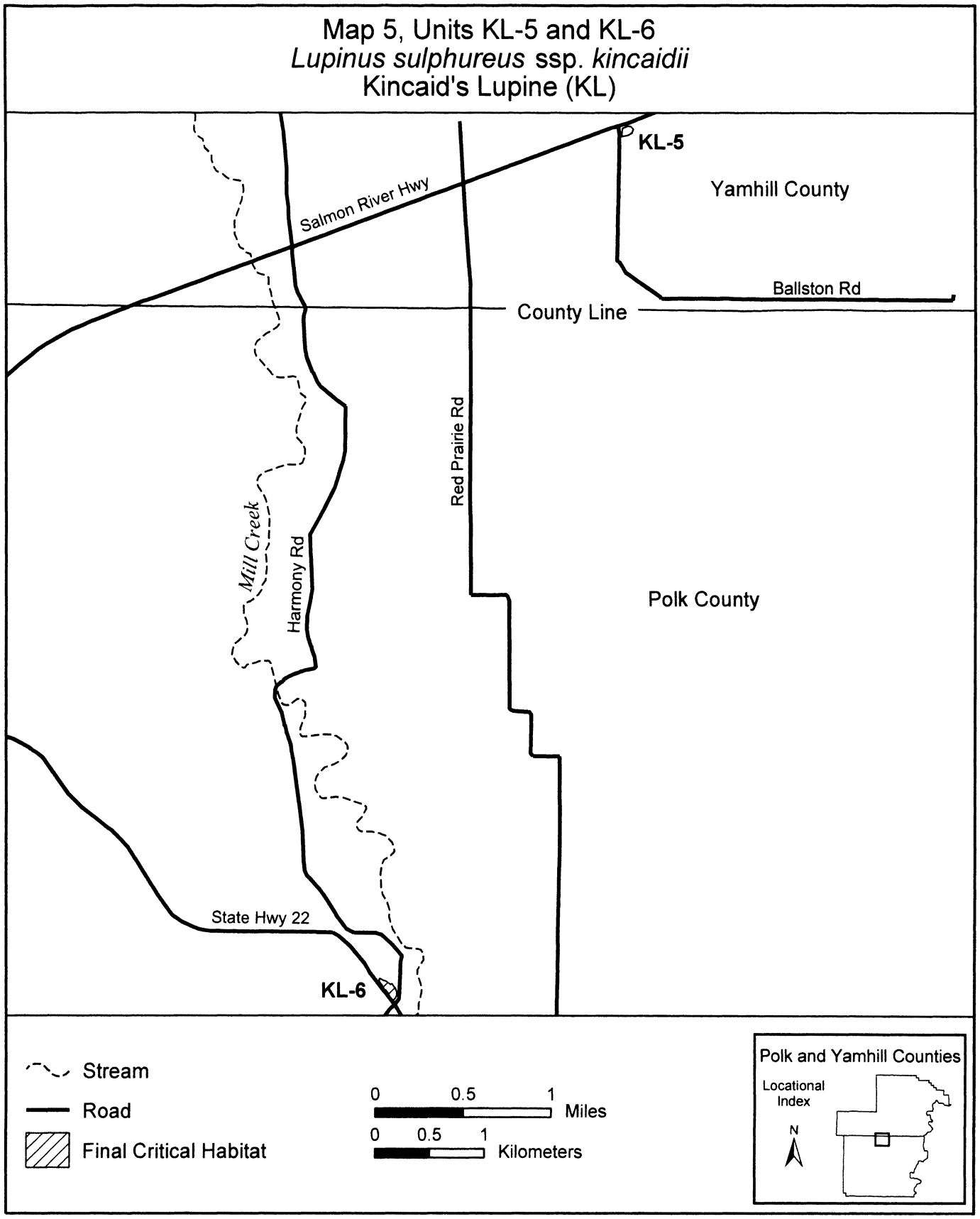
BILLING CODE 4310–55–C

(9) Units 5 and 6 for *Lupinus sulphureus* ssp. *kincaidii* (KL–5 and KL–6): Yamhill and Polk Counties, Oregon.

(i) Unit 5 (KL–5): 468949, 4992915; 468897, 4992904; 468904, 4992979; 468953, 4992996; 468981, 4992995; 469003, 4992969; 468989, 4992935; 468949, 4992915.

(ii) Unit 6 (KL–6): 466744, 4985295; 466788, 4985264; 466788, 4985266; 466788, 4985267; 466788, 4985268; 466789, 4985269; 466789, 4985270; 466790, 4985271; 466791, 4985272; 466792, 4985273; 466793, 4985273; 466795, 4985273; 466796, 4985274; 466797, 4985273; 466798, 4985273; 466800, 4985272; 466800, 4985272; 466801, 4985271; 466802, 4985270; 466802, 4985269; 466803, 4985267; 466803, 4985266; 466803, 4985265; 466802, 4985264; 466805, 4985263; 466814, 4985246; 466828, 4985234; 466834, 4985222; 466841, 4985196; 466839, 4985170; 466828, 4985145; 466814, 4985129; 466805, 4985129; 466783, 4985143; 466767, 4985178; 466742, 4985216; 466725, 4985214; 466725, 4985212; 466721, 4985211; 466718, 4985210; 466715, 4985211; 466711, 4985212; 466707, 4985213; 466700, 4985220; 466694, 4985237; 466694, 4985239; 466694, 4985241; 466696, 4985243; 466710, 4985258; 466681, 4985295; 466683, 4985320; 466691, 4985320; 466712, 4985309; 466744, 4985295.

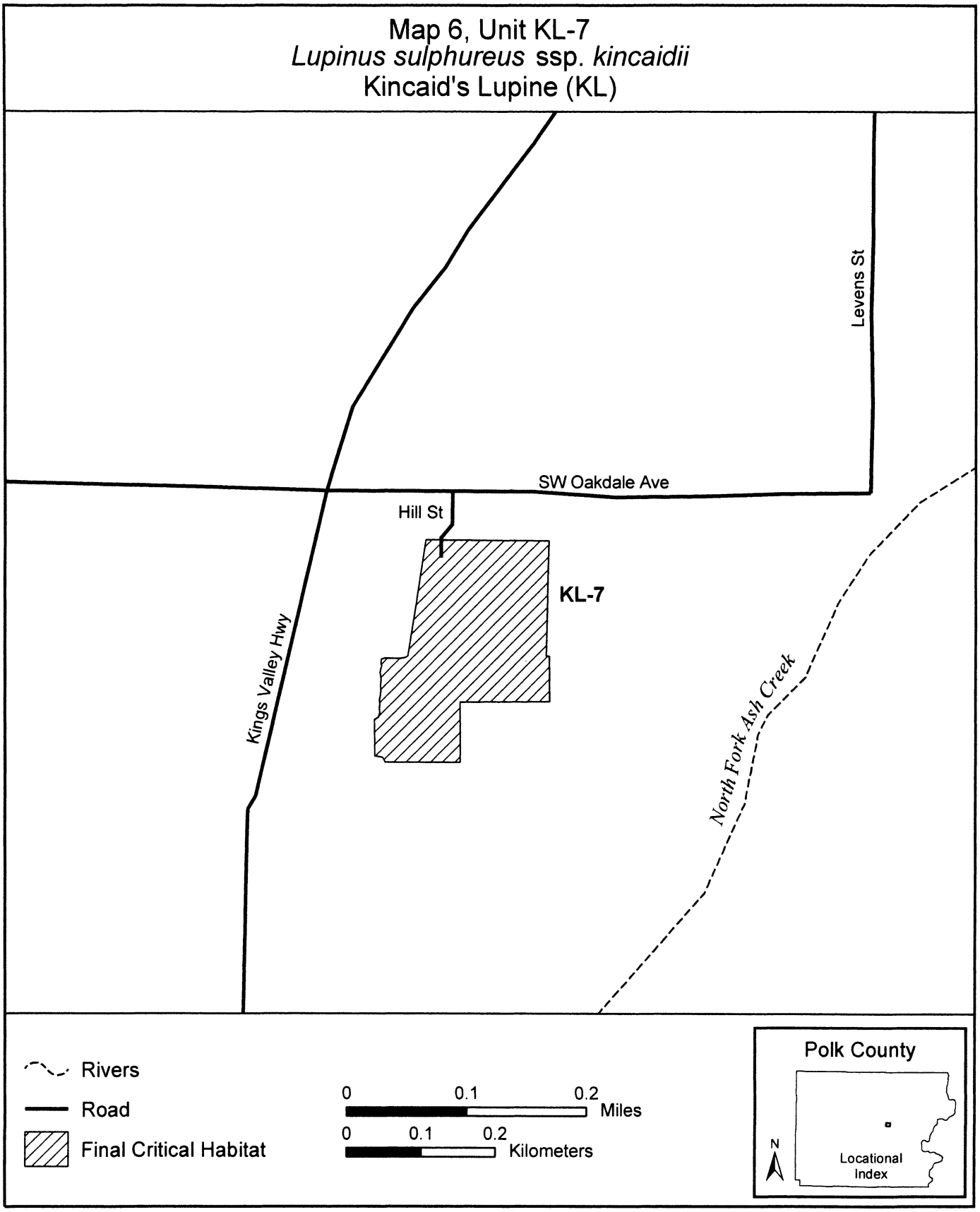
(iii) Note: Map 5 (Units 5 and 6 for *Lupinus sulphureus* ssp. *kincaidii* (KL–5 and KL–6)) follows:


Map 5, Units KL-5 and KL-6
Lupinus sulphureus ssp. *kincaidii*
Kincaid's Lupine (KL)
KL-5
Yamhill County
Salmon River Hwy
Ballston Rd
County Line
Red Prairie Rd
Mill Creek
Harmony Rd
Polk County
State Hwy 22
KL-6
Stream
Road
Final Critical Habitat
0 0.5 1
Miles
0 0.5 1
Kilometers
Polk and Yamhill Counties
Locational Index
N

(10) Unit 7 for *Lupinus sulphureus* ssp. *kincaidii* (KL–7), Polk County, Oregon.

(i) Unit 7 (KL–7): 474272, 4973321; 474269, 4973168; 474273, 4973168; 474274, 4973107; 474153, 4973107; 474153, 4973026; 474053, 4973026; 474051, 4973029; 474049, 4973032; 474047, 4973034; 474042, 4973034; 474039, 4973035; 474038, 4973084; 474044, 4973086; 474045, 4973092; 474045, 4973097; 474045, 4973104; 474045, 4973109; 474046, 4973116; 474047, 4973121; 474046, 4973128; 474047, 4973134; 474047, 4973139; 474046, 4973146; 474047, 4973152; 474048, 4973154; 474047, 4973158; 474048, 4973164; 474049, 4973164; 474052, 4973165; 474054, 4973165; 474061, 4973165; 474067, 4973165; 474074, 4973165; 474079, 4973166; 474083, 4973168; 474098, 4973263; 474107, 4973322; 474272, 4973321.

(ii) Note: Map 6 (Unit 7 for *Lupinus sulphureus* ssp. *kincaidii* (Unit KL–7)) follows:


Map 6, Unit KL-7
Lupinus sulphureus ssp. *kincaidii*
Kincaid's Lupine (KL)
Levens St
SW Oakdale Ave
Hill St
KL-7
Kings Valley Hwy
North Fork Ash Creek
Rivers
Road
Final Critical Habitat
0 0.1 0.2 Miles
0 0.1 0.2 Kilometers
Polk County
N
Locational Index

(11) Units 8, 9, and 10 for *Lupinus sulphureus* ssp. *kincaidii* (KL–8, KL–9, and KL–10), Benton County, Oregon.

(i) Unit 8 (KL–8): 472041, 4940614; 472041, 4940616; 472040, 4940619; 472041, 4940623; 472043, 4940628; 472043, 4940632; 472043, 4940636; 472043, 4940639; 472045, 4940641; 472047, 4940642; 472048, 4940642; 472051, 4940646; 472051, 4940651; 472051, 4940655; 472051, 4940658; 472051, 4940660; 472050, 4940665; 472053, 4940667; 472057, 4940668; 472060, 4940670; 472063, 4940668; 472066, 4940668; 472070, 4940667; 472070, 4940663; 472073, 4940660; 472078, 4940658; 472080, 4940661; 472083, 4940662; 472087, 4940663; 472090, 4940662; 472092, 4940663; 472095, 4940664; 472100, 4940664; 472104, 4940663; 472106, 4940661; 472107, 4940659; 472109, 4940656; 472113, 4940654; 472115, 4940653; 472115, 4940650; 472117, 4940648; 472120, 4940647; 472121, 4940645; 472121, 4940641; 472122, 4940640; 472123, 4940636; 472124, 4940633; 472121, 4940632; 472116, 4940631; 472114, 4940629; 472112, 4940626; 472110, 4940622; 472110, 4940618; 472109, 4940613; 472108, 4940609; 472104, 4940605; 472102, 4940599; 472103, 4940594; 472104, 4940590; 472105, 4940586; 472105, 4940586; 472104, 4940582; 472100, 4940579; 472093, 4940558; 472089, 4940535; 472102, 4940527; 472103, 4940510; 472115, 4940498; 472124, 4940503; 472127, 4940510; 472139, 4940515; 472141, 4940507; 472138, 4940499; 472146, 4940494; 472164, 4940503; 472202, 4940512; 472206, 4940531; 472188, 4940534; 472187, 4940543; 472200, 4940547; 472206, 4940555; 472202, 4940572; 472218, 4940570; 472251, 4940569; 472260, 4940564; 472276, 4940554; 472282, 4940544; 472285, 4940531; 472293, 4940519; 472286, 4940510; 472283, 4940499; 472297, 4940500; 472300, 4940495; 472311, 4940488; 472311, 4940478; 472320, 4940474; 472338, 4940465; 472348, 4940472; 472357, 4940472; 472362, 4940461; 472368, 4940442; 472375, 4940417; 472375, 4940401; 472375, 4940393; 472376, 4940386; 472381, 4940384; 472384, 4940372; 472392, 4940365; 472407, 4940365; 472417, 4940360; 472431, 4940353; 472442, 4940342; 472442, 4940330; 472448, 4940313; 472451, 4940311; 472434, 4940281; 472417, 4940275; 472391, 4940279; 472389, 4940288; 472373, 4940293; 472366, 4940287; 472355, 4940295; 472355, 4940315; 472332, 4940334; 472332, 4940335; 472330, 4940336; 472301, 4940344; 472299, 4940360; 472299, 4940361; 472311, 4940365; 472327, 4940351; 472329, 4940349; 472342, 4940348; 472343, 4940367; 472356, 4940366; 472367, 4940381; 472367, 4940397; 472363, 4940405; 472338, 4940405; 472319, 4940428; 472305, 4940430; 472296, 4940445; 472281, 4940449; 472273, 4940443; 472273, 4940443; 472251, 4940425; 472164, 4940437; 472163, 4940436; 472159, 4940437; 472152, 4940450; 472136, 4940452; 472113, 4940447; 472102, 4940421; 472101, 4940419; 472071, 4940414; 472042, 4940422; 472034, 4940405; 472014, 4940407; 472014, 4940392; 472010, 4940384; 471999, 4940374; 471994, 4940367; 471993, 4940345; 471971, 4940342; 471946, 4940345; 471939, 4940342; 471939, 4940329; 471938, 4940303; 471930, 4940288; 471928, 4940269; 471917, 4940269; 471905, 4940275; 471902, 4940293; 471910, 4940305; 471919, 4940326; 471922, 4940338; 471932, 4940351; 471948, 4940354; 471966, 4940360; 471970, 4940368; 471976, 4940385; 471993, 4940398; 472001, 4940410; 472018, 4940418; 472024, 4940429; 472024, 4940445; 472026, 4940447; 472041, 4940454; 472049, 4940482; 472069, 4940490; 472078, 4940515; 472072, 4940521; 472074, 4940530; 472082, 4940534; 472085, 4940542; 472082, 4940565; 472080, 4940574; 472072, 4940583; 472072, 4940587; 472072, 4940587; 472072, 4940590; 472071, 4940592; 472071, 4940595; 472072, 4940596; 472073, 4940596; 472074, 4940597; 472079, 4940597; 472079, 4940602; 472077, 4940609; 472072, 4940612; 472070, 4940612; 472067, 4940612; 472065, 4940611; 472061, 4940613; 472056, 4940616; 472048, 4940615; 472046, 4940613; 472045, 4940612; 472045, 4940611; 472043, 4940611; 472041, 4940614; 472041, 4940614.

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(iii) Unit 10 (KL–10): 471874, 4933617; 471875, 4933616; 471877, 4933616; 471878, 4933616; 471880, 4933616; 471881, 4933616; 471882, 4933615; 471883, 4933614; 471884, 4933613; 471884, 4933612; 471884, 4933611; 471886, 4933610; 471886, 4933609; 471887, 4933608; 471887,

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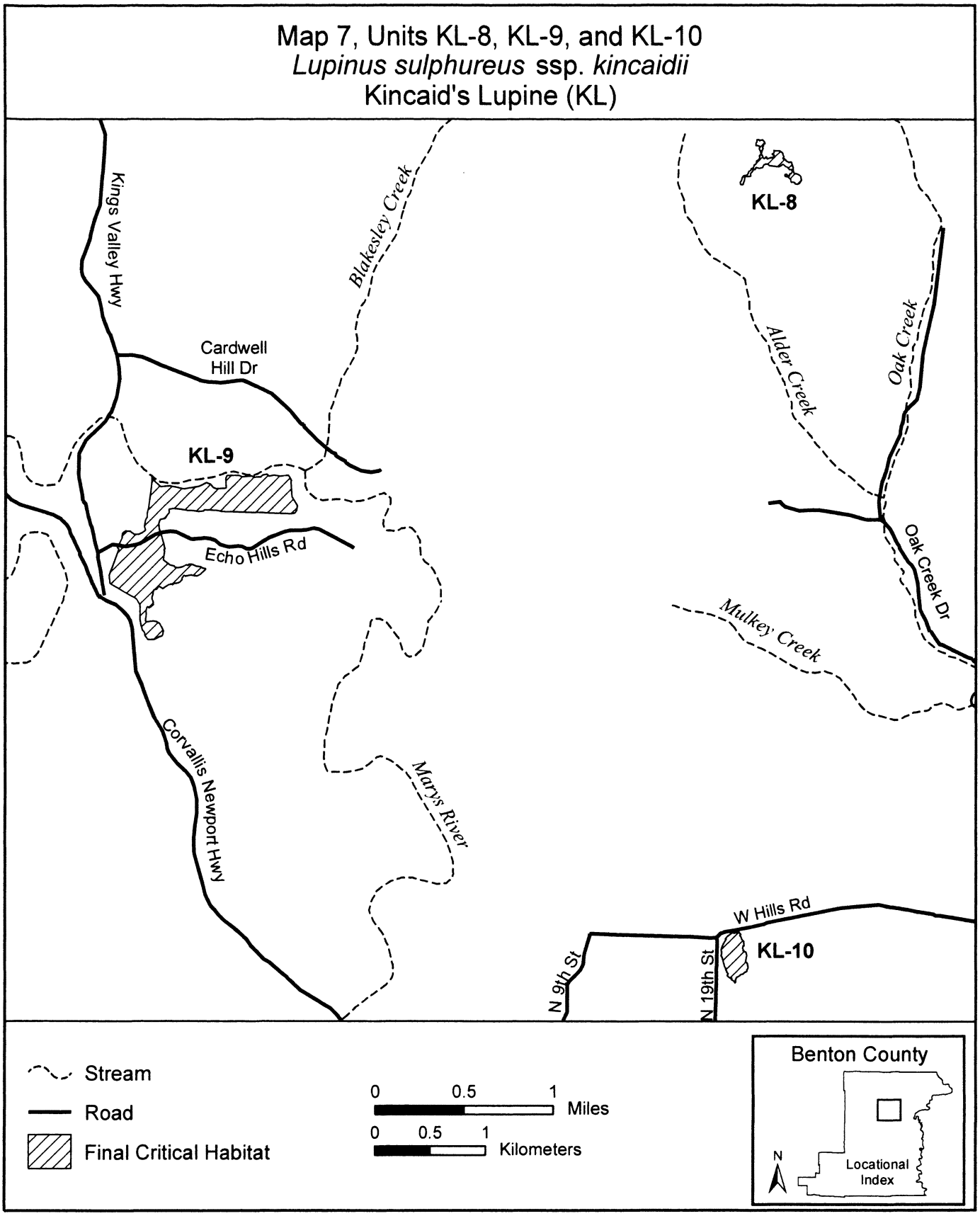
(iv) Note: Map 7 (Units 8, 9, and 10 for *Lupinus sulphureus* ssp. *kincaidii* (KL–8, KL–9, and KL–10)) follows:


Map 7, Units KL-8, KL-9, and KL-10
Lupinus sulphureus ssp. *kincaidii*
Kincaid's Lupine (KL)
Kings Valley Hwy
Blakesley Creek
KL-8
Alder Creek
Oak Creek
Cardwell Hill Dr
KL-9
Echo Hills Rd
Oak Creek Dr
Mulkey Creek
Corvallis Newport Hwy
Marys River
W Hills Rd
KL-10
N 9th St
N 19th St
Stream
Road
Final Critical Habitat
0 0.5 1 Miles
0 0.5 1 Kilometers
Benton County
N
Locational Index

BILLING CODE 4310–55–C

(12) Units 11 and 12 for *Lupinus sulphureus* ssp. *kincaidii* (KL–11 and KL–12), Lane County, Oregon.

(i) Unit 11A (KL–11A): 478559, 4883057; 478562, 4883057; 478566, 4883056; 478555, 4883049; 478551, 4883048; 478547, 4883048; 478548, 4883039; 478543, 4883035; 478539, 4883034; 478535, 4883034; 478528, 4883030; 478527, 4883024; 478526, 4883021; 478527, 4883013; 478522, 4883015; 478514, 4883014; 478508, 4883005; 478508, 4883005; 478507, 4883005; 478480, 4882999; 478454, 4882997; 478442, 4882989; 478429, 4882989; 478419, 4882997; 478419, 4882997; 478418, 4882997; 478411, 4882989; 478403, 4882979; 478397, 4882964; 478386, 4882946; 478382, 4882940; 478366, 4882933; 478352, 4882939; 478349, 4882940; 478341, 4882948; 478333, 4882956; 478333, 4882956; 478333, 4882956; 478331, 4882954; 478317, 4882944; 478296, 4882954; 478298, 4882969; 478304, 4882985; 478322, 4883013; 478329, 4883031; 478335, 4883047; 478339, 4883067; 478349, 4883088; 478361, 4883104; 478367, 4883118; 478379, 4883126; 478392, 4883133; 478403, 4883134; 478406, 4883134; 478415, 4883127; 478417, 4883117; 478417, 4883114; 478417, 4883114; 478417, 4883114; 478420, 4883108; 478422, 4883098; 478423, 4883095; 478428, 4883084; 478435, 4883079; 478441, 4883074; 478458, 4883069; 478458, 4883069; 478459, 4883069; 478484, 4883066; 478496, 4883065; 478510, 4883065; 478524, 4883065; 478536, 4883063; 478559, 4883057.

(ii) Unit 11B (KL–11B): 479010, 4883102; 479010, 4883102; 479010, 4883102; 479013, 4882998; 479012, 4882998; 479010, 4882997; 479004, 4882995; 479006, 4882987; 479013, 4882982; 479013, 4882980; 479010, 4882970; 478998, 4882966; 478962, 4882964; 478931, 4882967; 478927, 4882977; 478927, 4882977; 478926, 4882977; 478913, 4882973; 478897, 4882962; 478857, 4882952; 478838, 4882954; 478832, 4882961; 478821, 4882979; 478819, 4882982; 478819, 4882982; 478819, 4882982; 478807, 4882981; 478794, 4882977; 478778, 4882977; 478764, 4882966; 478764, 4882966; 478764, 4882965; 478761, 4882964; 478754, 4882965; 478745, 4882963; 478740, 4882964; 478733, 4882965; 478727, 4882963; 478724, 4882966; 478718, 4882968; 478712, 4882967; 478705, 4882966; 478698, 4882964; 478695, 4882965; 478690, 4882966; 478681, 4882963; 478663, 4882963; 478648, 4882961; 478642, 4882963; 478630, 4882964; 478624, 4882966; 478624, 4882970; 478623, 4882973; 478627, 4882983; 478627, 4882984; 478625, 4882993; 478625, 4882999; 478629, 4883002; 478637, 4883001; 478640, 4883008; 478639, 4883017; 478649, 4883022; 478660, 4883025; 478664, 4883022; 478670, 4883022; 478676, 4883024; 478694, 4883032; 478697, 4883033; 478707, 4883039; 478724, 4883031; 478728, 4883021; 478730, 4883011; 478746, 4883005; 478746, 4883005; 478746, 4883005; 478766, 4883009; 478772, 4883015; 478790, 4883005; 478790, 4883005; 478790, 4883005; 478810, 4883015; 478816, 4883037; 478816, 4883053; 478814, 4883069; 478806, 4883096; 478815, 4883107; 478859, 4883108; 478880, 4883106; 478901, 4883104; 478921, 4883108; 479004, 4883110; 479010, 4883103; 479010, 4883102; 479010, 4883102.

(iii) Unit 11C (KL–11C): 479211, 4883005; 479211, 4883009; 479209, 4883033; 479209, 4883080; 479213, 4883102; 479213, 4883103; 479211, 4883128; 479213, 4883156; 479211, 4883190; 479211, 4883217; 479215, 4883247; 479211, 4883265; 479209, 4883283; 479217, 4883313; 479219, 4883337; 479239, 4883339; 479278, 4883339; 479320, 4883342; 479362, 4883342; 479389, 4883340; 479413, 4883340; 479442, 4883333; 479454, 4883325; 479444, 4883317; 479419, 4883305; 479409, 4883299; 479403, 4883279; 479397, 4883259; 479385, 4883239; 479377, 4883216; 479371, 4883204; 479373, 4883192; 479373, 4883176; 479375, 4883162; 479371, 4883148; 479361, 4883128; 479357, 4883120; 479353, 4883108; 479365, 4883104; 479365, 4883104; 479366, 4883104; 479370, 4883102; 479372, 4883091; 479372, 4883083; 479371, 4883075; 479369, 4883061; 479365, 4883041; 479361, 4883025; 479345, 4883003; 479332, 4883007; 479332, 4883007; 479331, 4883007; 479333, 4882993; 479321, 4882977; 479305, 4882968; 479282, 4882968; 479266, 4882969; 479246, 4882973; 479246, 4882973; 479246, 4882973; 479226, 4882972; 479219, 4882977; 479213, 4882991; 479211, 4883005.

(iv) Unit 11D (KL–11D): 480169, 4882164; 480159, 4882157; 480143, 4882160; 480119, 4882161; 480100, 4882155; 480037, 4882155; 480023, 4882162; 480015, 4882171; 479994, 4882182; 479982, 4882179; 479981, 4882188; 479978, 4882213; 479980, 4882240; 479978, 4882272; 479976, 4882288; 479968, 4882318; 479954, 4882344; 479944, 4882371; 479942, 4882401; 479946, 4882431; 479954, 4882449; 479962, 4882455; 479980, 4882461; 479990, 4882465; 479999, 4882463; 480017, 4882459; 480037, 4882473; 480047, 4882494; 480063, 4882502; 480077, 4882508; 480109, 4882512; 480134, 4882518; 480158, 4882532; 480171, 4882532; 480171, 4882524; 480172, 4882501; 480173, 4882467; 480173, 4882393; 480173, 4882308; 480170, 4882236; 480168, 4882173; 480168, 4882165; 480169, 4882164.

(v) Unit 11E (KL–11E): 481623, 4880789; 481624, 4880785; 481625, 4880779; 481624, 4880773; 481624, 4880768; 481624, 4880763; 481622, 4880754; 481621, 4880747; 481621, 4880738; 481619, 4880734; 481619, 4880726; 481619, 4880715; 481618, 4880702; 481618, 4880691; 481618, 4880679; 481618, 4880667; 481617, 4880657; 481617, 4880647; 481617, 4880635; 481617, 4880621; 481617, 4880610; 481616, 4880599; 481616, 4880591; 481616, 4880583; 481616, 4880575; 481616, 4880566; 481615, 4880556; 481615, 4880554; 481614, 4880528; 481600, 4880528; 481599, 4880529; 481598, 4880529; 481594, 4880529; 481589, 4880526; 481587, 4880525; 481577, 4880525; 481572, 4880525; 481568, 4880525; 481563, 4880525; 481559, 4880525; 481557, 4880525; 481553, 4880523; 481551, 4880523; 481541, 4880523; 481540, 4880523; 481540, 4880523; 481532, 4880524; 481525, 4880523; 481509, 4880519; 481496, 4880519; 481494, 4880520; 481483, 4880523; 481470, 4880525; 481470, 4880525; 481470, 4880525; 481469, 4880525; 481454, 4880526; 481448, 4880527; 481431, 4880531; 481409, 4880530; 481409, 4880530; 481399, 4880530; 481399, 4880545; 481399, 4880545; 481396, 4880551; 481392, 4880559; 481388, 4880568; 481385, 4880577; 481384, 4880586; 481382, 4880595; 481381, 4880600; 481381, 4880606; 481378, 4880617; 481376, 4880627; 481375, 4880635; 481376, 4880642; 481378, 4880648; 481378, 4880649; 481379, 4880651; 481380, 4880651; 481386, 4880656; 481391, 4880657; 481396, 4880658; 481398, 4880658; 481400, 4880657; 481401, 4880674; 481426, 4880675; 481437, 4880674; 481437, 4880675; 481438, 4880675; 481438, 4880675; 481443, 4880679; 481448, 4880686; 481454, 4880692; 481461, 4880697; 481466, 4880702; 481473, 4880709; 481478, 4880715; 481481, 4880724; 481484, 4880732; 481485, 4880737; 481486, 4880744; 481487, 4880751; 481488, 4880756; 481488, 4880762; 481488, 4880768; 481485, 4880774; 481482, 4880779; 481480, 4880786; 481478, 4880790; 481477, 4880795; 481475, 4880803; 481474, 4880808; 481473, 4880813; 481473, 4880820; 481467,

4880823; 481460, 4880829; 481455, 4880836; 481454, 4880844; 481455, 4880854; 481460, 4880864; 481464, 4880872; 481468, 4880877; 481472, 4880882; 481476, 4880886; 481481, 4880892; 481489, 4880897; 481495, 4880902; 481502, 4880908; 481511, 4880912; 481515, 4880917; 481521, 4880920; 481529, 4880923; 481535, 4880925; 481542, 4880927; 481545, 4880928; 481567, 4880927; 481580, 4880925; 481590, 4880922; 481597, 4880918; 481602, 4880914; 481602, 4880914; 481602, 4880913; 481609, 4880913; 481612, 4880913; 481615, 4880820; 481611, 4880820; 481611, 4880816; 481612, 4880815; 481616, 4880815; 481616, 4880806; 481617, 4880802; 481620, 4880797; 481622, 4880794; 481622, 4880793; 481623, 4880790; 481623, 4880789.

(vi) Unit 12A (KL–12A): 482637, 4878489; 482654, 4878466; 482492, 4878476; 482492, 4878521; 482544, 4878709; 482595, 4878851; 482687, 4878901; 482911, 4878899; 482883, 4878825; 482792, 4878741; 482744, 4878644; 482654, 4878599; 482625, 4878583; 482637, 4878489.

(vii) Unit 12B (KL–12B): 483911, 4878992; 483905, 4878969; 483900, 4878970; 483898, 4878969; 483891, 4878967; 483885, 4878967; 483879, 4878968; 483872, 4878969; 483865, 4878971; 483862, 4878974; 483860, 4878980; 483860, 4878989; 483862, 4878998; 483869, 4879003; 483877, 4879006; 483887, 4879003; 483896, 4878996; 483911, 4878992.

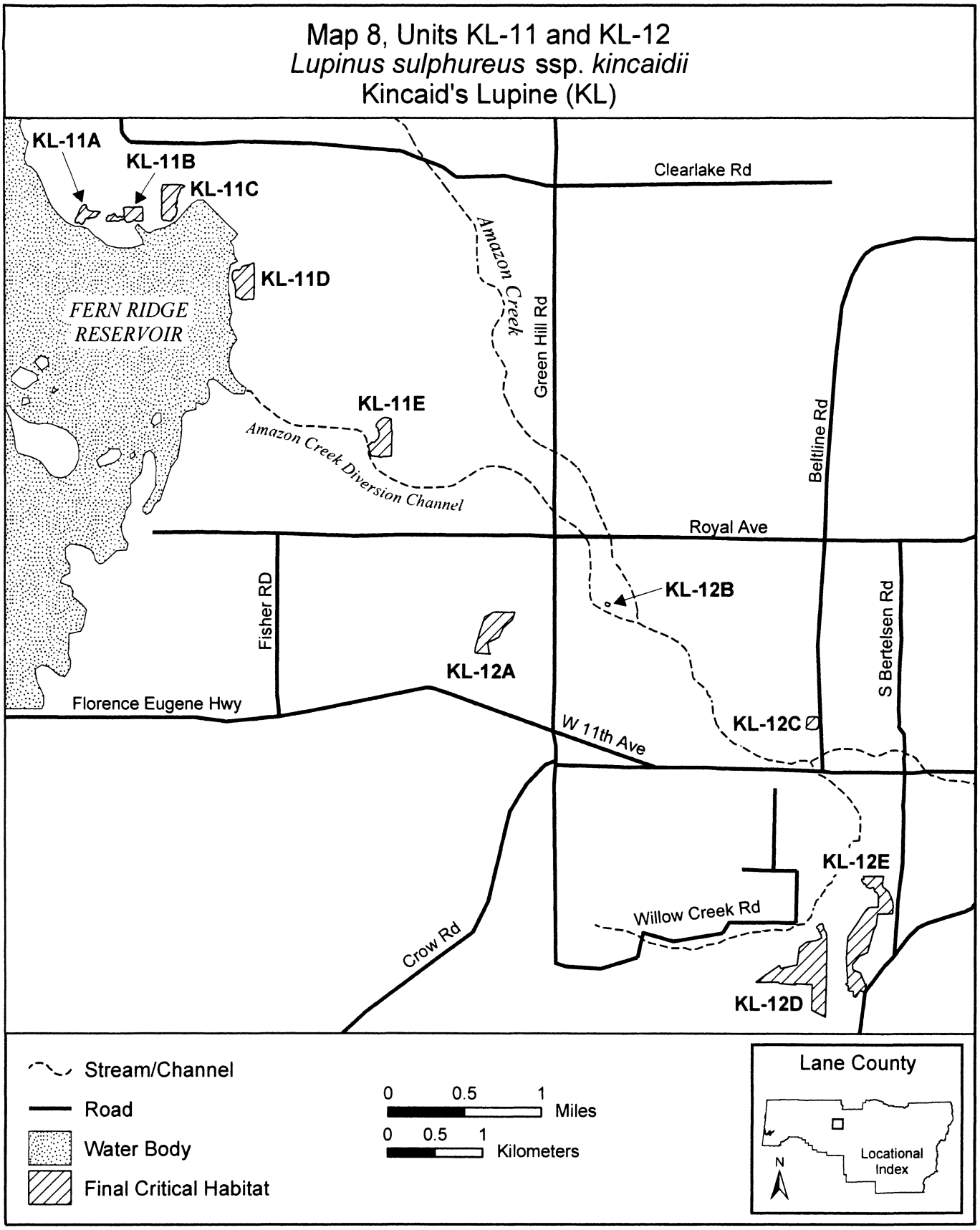
(viii) Unit 12C (KL–12C): 486106, 4877708; 486095, 4877689; 486073, 4877685; 486030, 4877683; 486019, 4877685; 486000, 4877689; 485980, 4877691; 485977, 4877703; 485976, 4877703; 485977, 4877712; 485983, 4877780; 485984, 4877781; 485987, 4877791; 485988, 4877795; 485996, 4877809; 485999, 4877814; 486024, 4877817; 486038, 4877818; 486042, 4877818; 486064, 4877815; 486085, 4877816; 486097, 4877812; 486099, 4877812; 486110, 4877794; 486111, 4877786; 486113, 4877755; 486112, 4877751; 486111, 4877741; 486112, 4877740; 486112, 4877736; 486112, 4877735; 486110, 4877734; 486110, 4877734; 486107, 4877713; 486106, 4877708; 486106, 4877708.

(ix) Unit 12D (KL–12D): 486197, 4875513; 486200, 4875474; 486201, 4875316; 486185, 4874677; 486042, 4874749; 486046, 4875014; 485875, 4875023; 485874, 4875012; 485698, 4875023; 485695, 4875035; 485450, 4875035; 485608, 4875144; 485702, 4875208; 485712, 4875178; 485862, 4875211; 485889, 4875218; 485910, 4875396; 485986, 4875456; 486062, 4875471; 486072, 4875472; 486086, 4875473; 486088, 4875478; 486096, 4875476; 486143, 4875502; 486141, 4875516; 486141, 4875526; 486138, 4875537; 486132, 4875540; 486115, 4875576; 486116, 4875585; 486113, 4875587; 486113, 4875591; 486100, 4875599; 486094, 4875607; 486092, 4875611; 486092, 4875616; 486105, 4875626; 486123, 4875643; 486143, 4875649; 486156, 4875646; 486159, 4875643; 486163, 4875634; 486164, 4875624; 486166, 4875609; 486169, 4875599; 486174, 4875586; 486190, 4875560; 486193, 4875549; 486195, 4875534; 486197, 4875513.

(x) Unit 12E (KL–12E): 486793, 4876121; 486790, 4876107; 486783, 4876064; 486783, 4876051; 486790, 4876034; 486805, 4876021; 486842, 4875993; 486855, 4875977; 486860, 4875962; 486869, 4875946; 486883, 4875908; 486893, 4875878; 486895, 4875857; 486896, 4875826; 486892, 4875791; 486893, 4875754; 486886, 4875756; 486738, 4875751; 486734, 4875744; 486731, 4875711; 486725, 4875665; 486720, 4875629; 486693, 4875573; 486629, 4875348; 486549, 4875312; 486469, 4875220; 486477, 4875168; 486553, 4875136; 486603, 4875021; 486608, 4875021; 486616, 4875020; 486601, 4874935; 486577, 4874945; 486546, 4874949; 486542, 4874941; 486522, 4874907; 486507, 4874882; 486482, 4874888; 486482, 4874900; 486481, 4874944; 486439, 4874947; 486424, 4874957; 486426, 4874980; 486427, 4875000; 486409, 4875006; 486398, 4875018; 486401, 4875024; 486416, 4875027; 486422, 4875028; 486417, 4875033; 486405, 4875292; 486421, 4875508; 486517, 4875652; 486614, 4875792; 486640, 4875821; 486742, 4875825; 486742, 4875951; 486725, 4875983; 486714, 4875983; 486709, 4875984; 486702, 4875993; 486694, 4876021; 486685, 4876033; 486684, 4876035; 486680, 4876031; 486676, 4876028; 486672, 4876025; 486660, 4876020; 486657, 4876018; 486652, 4876018; 486639, 4876025; 486629, 4876029; 486620, 4876034; 486614, 4876044; 486613, 4876052; 486610, 4876058; 486605, 4876068; 486594, 4876067; 486589, 4876066; 486585, 4876068; 486581, 4876078; 486576, 4876086; 486568, 4876093; 486565, 4876102; 486563, 4876110; 486565, 4876115; 486573, 4876118; 486577, 4876118; 486583, 4876115; 486588, 4876113; 486592, 4876119; 486590, 4876128; 486585, 4876137; 486580, 4876144; 486579, 4876147; 486795, 4876145; 486793, 4876121.

(xi) Note: Map 8 (Units 11 and 12 for *Lupinus sulphureus* ssp. *kincaidii* (KL–11 and KL–12)) follows:

BILLING CODE 4310–55–P



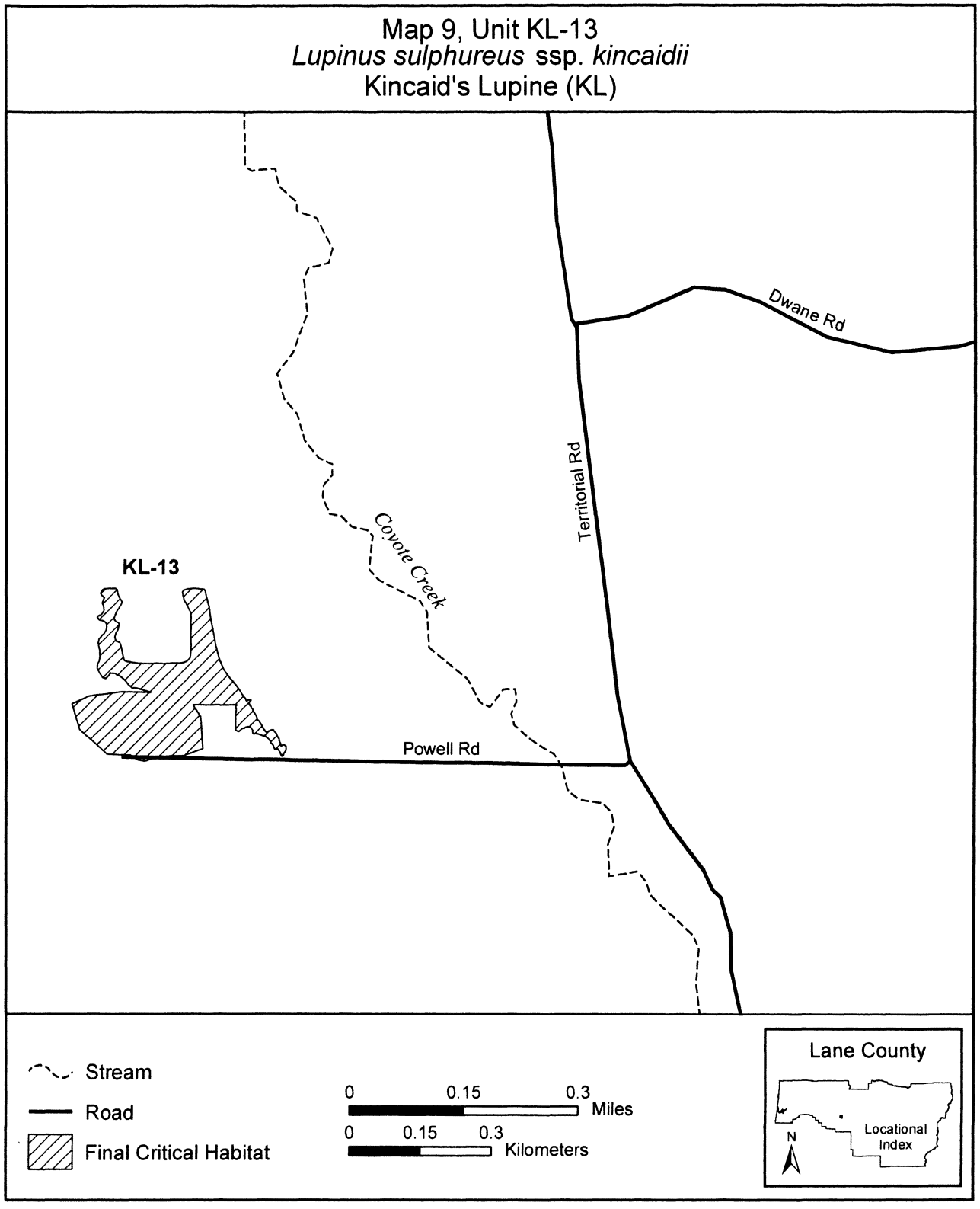
BILLING CODE 4310–55–C

(13) Unit 13 for *Lupinus sulphureus* ssp. *kincaidii* (KL–13), Lane County, Oregon.

(i) Unit 13 (KL–13): 477516, 4863792; 477526, 4863769; 477539, 4863754; 477557, 4863729; 477564, 4863719; 477567, 4863715; 477568, 4863712; 477571, 4863710; 477572, 4863707; 477574, 4863705; 477578, 4863708; 477580, 4863709; 477582, 4863709; 477582, 4863706; 477577, 4863701; 477579, 4863699; 477580, 4863696; 477582, 4863695; 477583, 4863691; 477586, 4863689; 477588, 4863683; 477590, 4863679; 477593, 4863675; 477594, 4863672; 477597, 4863666; 477599, 4863663; 477606, 4863654; 477607, 4863651; 477609, 4863649; 477610, 4863646; 477612, 4863643; 477614, 4863639; 477625, 4863645; 477630, 4863645; 477632, 4863640; 477636, 4863638; 477639, 4863631; 477641, 4863628; 477642, 4863626; 477643, 4863623; 477644, 4863621; 477646, 4863616; 477645, 4863614; 477646, 4863612; 477652, 4863614; 477657, 4863610; 477656, 4863601; 477654, 4863598; 477652, 4863596; 477652, 4863592; 477650, 4863590; 477648, 4863591; 477645, 4863598; 477643, 4863602; 477641, 4863603; 477640, 4863605; 477634, 4863604; 477633, 4863603; 477631, 4863608; 477630, 4863613; 477627, 4863615; 477624, 4863618; 477623, 4863622; 477621, 4863625; 477618, 4863628; 477615, 4863629; 477611, 4863632; 477609, 4863632; 477604, 4863635; 477595, 4863637; 477587, 4863637; 477586, 4863640; 477586, 4863645; 477584, 4863649; 477581, 4863650; 477576, 4863652; 477573, 4863651; 477568, 4863648; 477565, 4863648; 477562, 4863645; 477558, 4863642; 477555, 4863641; 477550, 4863644; 477549, 4863646; 477549, 4863658; 477549, 4863666; 477550, 4863668; 477550, 4863670; 477549, 4863672; 477551, 4863675; 477550, 4863680; 477551, 4863684; 477551, 4863689; 477551, 4863691; 477551, 4863696; 477553, 4863696; 477552, 4863697; 477523, 4863697; 477519, 4863696; 477515, 4863697; 477495, 4863697; 477493, 4863698; 477491, 4863697; 477475, 4863697; 477471, 4863698; 477469, 4863697; 477460, 4863697; 477476, 4863673; 477480, 4863605; 477440, 4863591; 477378, 4863589; 477374, 4863585; 477360, 4863580; 477344, 4863582; 477332, 4863589; 477328, 4863592; 477293, 4863594; 477280, 4863594; 477223, 4863645; 477206, 4863699; 477241, 4863716; 477310, 4863725; 477372, 4863723; 477355, 4863728; 477341, 4863733; 477332, 4863733; 477326, 4863738; 477320, 4863745; 477314, 4863752; 477309, 4863756; 477298, 4863761; 477295, 4863763; 477287, 4863764; 477285, 4863760; 477282, 4863756; 477277, 4863752; 477271, 4863755; 477270, 4863757; 477265, 4863763; 477259, 4863773; 477261, 4863782; 477264, 4863786; 477265, 4863794; 477265, 4863801; 477265, 4863809; 477264, 4863817; 477262, 4863825; 477264, 4863835; 477270, 4863842; 477275, 4863846; 477279, 4863853; 477280, 4863860; 477278, 4863868; 477274, 4863872; 477270, 4863874; 477264, 4863875; 477260, 4863880; 477263, 4863883; 477267, 4863885; 477271, 4863889; 477274, 4863894; 477273, 4863903; 477270, 4863909; 477272, 4863916; 477275, 4863922; 477270, 4863926; 477267, 4863930; 477270, 4863936; 477275, 4863939; 477281, 4863940; 477288, 4863940; 477298, 4863940; 477302, 4863937; 477304, 4863927; 477306, 4863922; 477312, 4863912; 477311, 4863909; 477309, 4863905; 477305, 4863899; 477300, 4863892; 477298, 4863887; 477296, 4863883; 477294, 4863878; 477296, 4863874; 477300, 4863870; 477304, 4863869; 477306, 4863865; 477304, 4863859; 477304, 4863853; 477298, 4863847; 477296, 4863839; 477297, 4863834; 477300, 4863830; 477306, 4863828; 477307, 4863827; 477309, 4863824; 477310, 4863819; 477310, 4863815; 477313, 4863804; 477315, 4863796; 477316, 4863790; 477323, 4863787; 477333, 4863785; 477344, 4863784; 477356, 4863783; 477361, 4863783; 477372, 4863783; 477384, 4863784; 477400, 4863783; 477416, 4863784; 477432, 4863784; 477441, 4863785; 477448, 4863789; 477454, 4863796; 477455, 4863807; 477456, 4863822; 477455, 4863836; 477456, 4863859; 477455, 4863868; 477456, 4863878; 477455, 4863890; 477452, 4863897; 477445, 4863910; 477441, 4863916; 477439, 4863926; 477438, 4863933; 477441, 4863937; 477450, 4863939; 477464, 4863940; 477473, 4863939; 477482, 4863939; 477486, 4863935; 477487, 4863927; 477488, 4863922; 477491, 4863910; 477493, 4863901; 477495, 4863889; 477498, 4863873; 477502, 4863854; 477508, 4863822; 477516, 4863792.

(ii) Note: Map 9 (Unit 13 for *Lupinus sulphureus* ssp. *kincaidii* (KL–13)) follows:

BILLING CODE 4310–55–P



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Dated: October 12, 2006.

David M. Verhey,

Acting Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 06–8809 Filed 10–30–06; 8:45 am]

BILLING CODE 4310–55–C