



Federal Register

**Tuesday,
January 11, 2005**

Part II

Department of the Interior

Fish and Wildlife Service

50 CFR Part 17

**Endangered and Threatened Wildlife and
Plants; Designation of Critical Habitat for
the Colorado Butterfly Plant; Final Rule**

DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17**

RIN 1018-AJ07

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Colorado Butterfly Plant**AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for the Colorado butterfly plant (*Gaura neomexicana* ssp. *coloradensis*) under the Endangered Species Act of 1973, as amended (Act). In total, approximately 1,432 hectares (ha) (3,538 acres (ac)) along approximately 82 kilometers (km) (51 stream miles (mi)) fall within the boundaries of the critical habitat designation located in Laramie and Platte Counties in Wyoming. The designation excludes 30% of private and municipality lands through Wildlife Extension Agreements. Military lands as well as other areas within its range in Nebraska and Colorado are not included.

DATES: This final rule is effective February 10, 2005.**ADDRESSES:** Comments and materials received, as well as supporting documentation used in the preparation of this final rule, are available for public inspection, by appointment, during normal business hours at the Wyoming Field Office, U.S. Fish and Wildlife Service, 4000 Airport Parkway, Cheyenne, WY 82001.**FOR FURTHER INFORMATION CONTACT:** Brian T. Kelly, Field Supervisor, Wyoming Field Office (see **ADDRESSES** section) (telephone (307) 772-2374; facsimile (307) 772-2358).**SUPPLEMENTARY INFORMATION:****Designation of Critical Habitat Provides Little Additional Protection to Species**

In 30 years of implementing the Act, the Service has found that the designation of statutory critical habitat provides little additional protection to most listed species, while consuming significant amounts of available conservation resources. The Service's present system for designating critical habitat has evolved since its original statutory prescription into a process that provides little real conservation benefit, is driven by litigation and the courts rather than biology, limits our ability to fully evaluate the science involved,

consumes enormous agency resources, and imposes huge social and economic costs. 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.

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

While attention to and protection of habitat is paramount to successful conservation actions, we have consistently found that, in most circumstances, the designation of critical habitat is of little additional value for most listed species, yet it consumes large amounts of conservation resources. Sidle (1987) stated, "Because the Act can protect species with and without critical habitat designation, critical habitat designation may be redundant to the other consultation requirements of section 7." Currently, only 445 species or 36 percent of the 1,244 listed species in the U.S. under the jurisdiction of the Service have designated critical habitat. We address the habitat needs of all 1,244 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, and the Section 10 incidental take permit process. The Service believes that it is these measures that may make the difference between extinction and survival for many species.

We note, however, that a recent 9th Circuit judicial opinion, *Gifford Pinchot Task Force v. United States Fish and Wildlife Service*, has invalidated the Service's regulation defining destruction or adverse modification of critical habitat. We are currently reviewing the decision to determine what effect it may have on the outcome of consultations pursuant to section 7 of the Act.

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 of this consequence, 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 almost no ability to provide for adequate 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 situation 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, is very expensive, and in the final analysis provides relatively little additional protection to listed species.

The costs resulting from the designation include legal costs, the costs of preparation and publication of the designation, the analysis of the economic effects and the costs of requesting and responding to public comments, and, in some cases, the costs of compliance with National Environmental Policy Act. None of these costs result in any benefit to the species that is not already afforded by the protections of the Act enumerated earlier, and these associated costs directly reduce the scarce funds available for direct and tangible conservation actions.

Background

For more information on *G. n. ssp. coloradensis*, refer to the proposed critical habitat rule (August 6, 2004, 69 FR 47834).

Previous Federal Actions

On August 6, 2004, we published the proposed rule to designate critical habitat for *G. n. ssp. coloradensis* (69 FR 47834) with a 60-day comment period. In that proposed rule (beginning on page 47837), we included a summary of the previous Federal actions completed prior to publication of the proposal. On September 24, 2004, the Service announced the availability of the Draft Economic Analysis of Critical Habitat Designation for the Colorado Butterfly

Plant (Draft Economic Analysis) and the Draft Environmental Assessment for Proposal of Critical Habitat for the Colorado Butterfly Plant (Draft EA) (69 FR 57250), and extended the comment period on all three documents through October 25, 2004. No requests for public hearings were received.

Summary of Comments and Recommendations

During the comment period, we contacted appropriate Federal, State, and local agencies and other interested parties and invited them to comment on the proposed critical habitat rule. We contacted interested parties (including elected officials, media outlets, local jurisdictions, and interest groups) through a press release and related faxes, mailed announcements, telephone calls, and e-mails. On September 24, 2004, the Service reopened a 30-day comment period on the draft economic analysis, draft EA, and proposed rule (69 FR 57250). We received a total of 13 comments. One comment letter was received from the State of Wyoming, five comment letters from peer reviewers, four comments from individual landowners, two comments representing four environmental groups, and one comment letter from the Wyoming Stockgrowers Association (WSA). Of the public comments, four comments opposed designation or favored reduced designation, and one comment supported designation and favored expanding the designation.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we solicited review from at least three independent specialists/experts regarding proposed rules. The purpose of such review is to ensure that our designation is based on scientifically sound data, assumptions, and analyses.

We solicited opinions from six independent experts to peer review the proposed critical habitat designation. The individuals were asked to review and comment on the specific assumptions and conclusions regarding the proposed designation of critical habitat. Five of the six peer reviewers provided comments, and we considered all comments. All peer reviewers supported the approach we used in our proposal that emphasized the importance of conserving riparian habitat in the context of upland habitat within stream reaches where *Gaura neomexicana* ssp. *coloradensis* occurs. The reviewers generally agreed that our methods and conclusions were appropriate and necessary for the

conservation of the *G. n.* ssp. *coloradensis*, and that the information we used was reasonably complete and appropriate regarding the best scientific information available for this species. We grouped the comments by issue.

Peer Review Comments

Comment 1 (Peer): One reviewer suggested that the Service consider including drainages downstream for the purpose of linking proposed Units 2 and 3, 2 and 4, and 5 and 6, allowing for potential colonization and expansion of populations via seed dispersal.

Our Response: In preparation of this designation, we considered the need for connectivity among subpopulations and habitat for this species, made a substantial effort to provide for linkage of individual subpopulations, and provide for colonization downstream via seed dispersal. We believe that the current extent of contiguous critical habitat provides for the conservation needs of the species and allows for colonization of new habitats and expansion of populations. We agree that preserving connectivity between known subpopulations and occupied habitat is valuable for the conservation of *G. n.* ssp. *coloradensis*.

We note that if new information regarding suitability of habitat occurring downstream and PCEs becomes available, we will consider this information for future recovery efforts. However, this information is not available at this time.

Comment 2 (Peer): One reviewer suggested that the criteria used to identify critical habitat adequately circumscribes areas that fulfill many of the PCEs of the species and that these criteria focus on ecological processes operating in small patch and large patch communities. Uncertainty about some aspects of the species' life history and habitat requirements (e.g., pollinators, population dynamics, seed viability) suggests that another criterion might be useful to address some of the landscape-scale factors (drought, fire, windstorms, and herbivory) operating on individuals, metapopulations, and populations in the communities.

Our Response: We agree with the reviewer that additional information on the species life history, ecology, and habitat requirements would be useful in preparing this designation. However, this designation is based on the best available information available to us, and we are doing our best to finalize the designation within the time frame of the court order and within our budgetary constraints. If, at any time, additional information becomes available to guide us, we will consider the information as

appropriate. We believe that this is useful in the recovery planning process and should be explored by a recovery team in the near future.

Comment 3 (Peer): One reviewer suggested that it would be useful to obtain some measure of landscape "intactness" for each known population. Such analysis might provide a more optimal configuration for circumscription of sites designated as critical, suggest areas with the highest or lowest potential of providing the PCEs, and identify management strategies that would be most beneficial to the species as a whole.

Our Response: We agree with the general approach and analysis provided by the reviewer. As stated in the response to Comment 2, we believe that such an analysis and approach is beyond the scope of this critical habitat designation, given the deadlines we face to completing the designation process, and would be appropriate to the recovery planning process in the future. Information derived from such an analysis may provide valuable information to be used in the long-term conservation of the species and may facilitate its delisting in the future.

Comment 4 (Peer): One reviewer expressed question and concern regarding the impact of groundwater withdrawal and water development projects within suitable habitat. Recognizing the need for periodic disturbance, including flooding, as necessary to control competing vegetation, this reviewer asked if all the sites proposed as critical habitat support hydrologic conditions of creating and maintaining habitat for the species.

Our Response: All sites included in this final critical habitat designation support hydrological conditions necessary to create and maintain habitat for the species (i.e., they contain PCE 4 as described in this rule). Based on surveys conducted during the summer of 2004, we found that some portions of the proposed critical habitat did not contain necessary hydrological conditions—these areas have been dropped from the final critical habitat designation. While we believe that water development and flood control has, generally, curtailed the level of disturbance associated with creation of suitable habitat for colonization, our observations during surveys of 2004 (including over 80 percent of species' extant range of occurrence) revealed that such hydrological conditions are present within all critical habitat units.

Comment 5 (Peer): One reviewer stated that the language used in the proposed rule that critical habitat provides little additional protection to

most species while consuming significant amounts of conservation resources was inappropriate. The reviewer pointed out that the Act requires designation of critical habitat, and that if the Service had not been so slow to designate, the agency would not be overrun by lawsuits.

Our Response: As discussed in the sections "Designation of Critical Habitat Provides Little Additional Protection to Species," "Role of Critical Habitat in Actual Practice of Administering and Implementing the Act," and "Procedural and Resource Difficulties in Designating Critical Habitat" and other sections of this and other critical habitat designations, we believe that, in most cases, conservation mechanisms provided through 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 programs with private and public landholders and tribal nations provide greater incentives and conservation benefits than does the designation of critical habitat. This is true irrespective of the amount of litigation which may be occurring at any given time.

Comment 6 (Peer): One reviewer stated that the most important factor for the conservation of the *G. n. ssp. coloradensis* is preservation and management of habitat. The reviewer agreed that designation of critical habitat on private land does not necessarily benefit the species. Similarly, another reviewer stated that in Wyoming, section 7 consultations are the primary plant conservation mechanism, and that there are no incentives provided by this mechanism for conservation on private lands. Most of the threats to the *G. n. ssp. coloradensis* on private lands, including weed invasion, indiscriminate herbicide application, habitat fragmentation, some water development, and/or particular grazing or haying practices, involve no Federal funds (or other Federal nexus) resulting in no requirement for section 7 consultation under the Act.

Our Response: We agree. This is why we have chosen to pursue Wildlife Extension Agreements with landowners in lieu of designating critical habitat on those properties. These agreements provide for implementation of on the ground conservation actions for *G. n. ssp. coloradensis* (for a more detailed discussion of these agreements, see "Exclusions Under Section 4(b)(2) of the Act" section).

Comment 7 (Peer): One reviewer noted that the critical habitat proposal

states that excessive grazing can change essential habitat conditions but can be used as a tool to maintain open habitat. The reviewer also notes that excessive grazing can directly and adversely affect *G. n. ssp. coloradensis* plants, particularly their ability to set seed. Similarly, another reviewer stated that it was appropriate to point out that grazing and haying provide important management tools with which to maintain open habitat for the species, and that the species has historically occupied, and currently continues to occupy, rangelands.

Our Response: We agree that while grazing can be an important land management tool, overgrazing or grazing at critical times can adversely affect the plant. Grazing management and the maintenance of suitable rangeland production and health are key components to the 11 WEAs the Service has secured with landowners to provide for conservation of *G. n. ssp. coloradensis*. To address this issue, we have included established, annual monitoring guidelines and methodology (Natural Resources Conservation Service, 2001) to evaluate rangeland health, in each WEA. In one WEA, currently in place, the Service paid for the construction of a fence enclosure to protect a population from overgrazing.

Comment 8 (Peer): One reviewer pointed out that there is no specific mention of weed control in the discussion of the Integrated Natural Resources Management Plan (INRMP) for Warren Air Force Base (WAFB), and that this is a major threat to *G. n. ssp. coloradensis* there.

Our Response: We summarized the goals and objectives as identified in the INRMP, which tend to be general in nature (see "Exclusions From Critical Habitat, Lands Under U.S. Air Force Jurisdiction" section). However, as pointed out by another reviewer, WAFB has demonstrated a clear commitment to wise land stewardship for this species over the past several years, and the Environmental Management Office of WAFB has cooperated with the Wyoming Natural Diversity Database (WNDD) staff to monitor populations as well as fund *G. n. ssp. coloradensis* conservation research on weed control, competition with other plants, and population genetic variation (e.g., Mountain West Environmental Services 1985, Fertig 2001, Munk *et al.* 2002, Tuthill and Brown 2002, Heidel 2004a and 2004b). Weed control, in particular, is an important part of ongoing discussions and land management efforts between the Service and WAFB, and is included in the "Conservation and Management Plan for the Colorado

Butterfly Plant and Preble's Meadow Jumping Mouse on F.E. Warren Air Force Base," a management plan prepared by the Colorado Natural Heritage Program (CNHP) for WAFB, in cooperation with the WNDD and the Service (Grunau *et al.* 2004).

State Agencies

We received one comment letter from the Wyoming Department of Agriculture (WDA), and issues raised by WDA are addressed below.

Comment 9 (State): The WDA had significant concerns about the potential economic impact to agricultural producers. Specific concerns included: (1) The cost share program between Partners for Fish and Wildlife (PFW) and ranchers for fencing core subpopulations, (2) costs incurred from delay of haying and herbicide application, (3) livestock grazing management changes recommended by the Service, and (4) WEA participation by ranchers in Laramie County.

Our Response: It appears as if the WDA is referring to an early draft form of a WEA that was made available to the Wyoming Stockgrowers Association and landowners early in the process for discussion and comments. Since that time, WEAs have been modified considerably based on extensive discussion and cooperation between individual landowners and the Service. Eleven WEAs were ultimately secured between landowners and the Service, providing protection to, and enabling the Service to exclude from final critical habitat designation, up to 2,564 ac (1,038 ha) along 37 mi (59 km) of riparian habitat. In only one of these agreements did the Service recommend building a fence to enclose a population of *G. n. ssp. coloradensis*. While the PFW Program does typically involve a 50 percent cost share, in this particular case the PFW paid 100 percent of cost for both materials and construction. In the future, if the Service determines that similar fencing surrounding a subpopulation of *G. n. ssp. coloradensis* would be helpful to meet the conservation needs of the plant on a particular property, the Service would use a similar cost structure.

Regarding the second part of the comment about delay of haying, the WEAs secured with landowners whose properties are managed, at least in part, for hay production, outline an approach whereby the landowner cooperates and communicates with the Service on an annual basis to facilitate our understanding of how the timing of harvest may impact the plant. At this time, more information is needed about this issue. The WEAs provide an

opportunity for the landowners and the Service to coordinate efforts of hay production and population data collection, respectively, to facilitate the conservation needs of the plant without imposing undue burden on the landowner. It is important to emphasize that these agreements were arrived at through discussions between the Service and each individual landowner to ensure the particular needs of the landowner were met. If future data collection on a particular landowner's parcel were to suggest that delay of hay cutting would be beneficial to the plant, then similar discussion would ensue toward reaching an agreement regarding how to meet the needs of the plant and, at the same time, meet the needs of the landowner. Such discussion also would consider whether the landowner would need monetary compensation. Thus, each agreement is individualized based on the unique situation of the landowner and the needs of the plant on that property. There are no set requirements of the Service that will cause undue burden, financial or otherwise, on the landowner.

Regarding the second part of the comment, need for herbicide application, the Service is fully aware of, and supports, the need to control noxious weeds on private and public property. Within all WEAs, the Service has recommended a manner in which herbicide may be applied in order to control species such as Canada thistle (*Cirsium arvense*) and leafy spurge (*Euphorbia esula*), at the same time as protecting populations of *G. n. ssp. coloradensis*. Again, such voluntary agreements involve the individual landowner working with the Service to address the landowner's needs while providing protection to the plant. Indeed, the Service has recognized for years that these two weed species in particular will, if left uncontrolled, lead to the elimination of habitat for *G. n. ssp. coloradensis*.

Regarding the third part of the comment, grazing management, the WEA outlines a method through which the landowner and the Service can work together to evaluate how rangeland production (according to NRCS standard methodology and guidelines, 2001), livestock grazing intensity and timing, and the maintenance of suitable habitat for *G. n. ssp. coloradensis* affect each other. On an annual basis, the Service and the landowner have an opportunity to evaluate these interacting factors, take into consideration the individual needs of the landowner and the conservation needs of the plant, and go forward with a mutually-agreed upon plan for the next year. Thus, through cooperation

and coordination between each landowner and the Service annually, the needs of both parties are met through this mutually participatory agreement.

As stated above in Comment 6 (Peer), the WEA provides a unique approach to protecting the conservation needs of *G. n. ssp. coloradensis* above and beyond that afforded by designation of critical habitat. Importantly, these voluntary agreements are based on mutual coordination and participation between the individual landowners and the Service. They provide a mechanism to meet the needs of both parties involved, with flexibility to manage adaptively each year as conditions on the ground may change, with little or no expense to the landowner (see "Exclusions Under Section 4(b)(2) of the Act" section for a more detailed discussion).

Public Comments

We reviewed all comments received for substantive issues and new data regarding critical habitat and *G. n. ssp. coloradensis*, the draft economic analysis, and the draft EA. In the following summary of issues we address comments received on all documents during the public comment periods. Comments of a similar nature are grouped into issues.

Comment 10: The Wyoming Stockgrowers Association (WSA) provided strong support for the use of Wildlife Extension Agreements as key to conservation of *G. n. ssp. coloradensis* on private lands. However, they noted that time constraints associated with critical habitat designation prohibited what would have been a greater success since more landowners would have participated if time had permitted. WSA suggested that the final designation of critical habitat for *G. n. ssp. coloradensis* include a provision allowing for development of future WEAs and the concomitant removal of critical habitat for those lands.

Our Response: The Service acknowledges that time constraints may have been a significant factor limiting the number of agreements with landowners. Modifying the final critical habitat for a federally listed species would require a revised rulemaking. While such revisions are not typical, the Service would consider a revision if a significant number of landowners are willing to participate in agreements.

Comment 11: The WSA also identified two concerns associated with the economic analysis—(1) For those ranchers who enter into WEAs, indirect costs that were not examined include reduced hay production and/or weight gain of livestock associated with land management changes; and (2) for those

landowners whose property receive the critical habitat designation, there is no analysis of lost opportunity costs resulting from their inability to participate in a number of Federal programs that provide expertise and dollars for resource improvement. The need for section 7 consultation will tend to discourage participation in these programs even in those cases where critical habitat is not a direct impediment to participation.

Our Response: Indirect costs to ranches entering into WEAs were examined. The comment correctly identifies the two potential avenues for weight loss, one related to haying activities and the other to grazing activities, both of which were included in the economic analysis. As described in Section 4.2.1.2 of that document, both quality and quantity losses in hay production are quantified. As for grazing, the economic analysis assumes the impacts on weight gain from excluding grazing on 0.08 ha (0.2 ac) during the period *G. n. ssp. coloradensis* produced and set seed are negligible. The enclosure could be grazed in May without any loss in nutritional value. The regrowth could then be grazed in September following the exclusion period, but the impact of the reduced weight gain from the regrowth should have a negligible impact on the overall weight gain of the livestock being grazed as it represents a minimal amount of forage. During the 3 months when grazing is not allowed in the enclosure, the analysis assumes that grazing could occur in the surrounding pasture.

Regarding the second part of the comment, while this may be an issue for some individual landowners, overall use of operational and conservation funding within the region is not expected to change as a result of the designation. As detailed in Section 4.1 of the economic analysis, the NRCS has not consulted with the Service in the past for *G. n. ssp. coloradensis*. Furthermore, as discussed in Section 4.2.1, the agency expects future demand for its programs in the southeastern portion of Wyoming (Laramie and Platte County) will continue to be light and that future consultations with the Service for *G. n. ssp. coloradensis* are unlikely. The NRCS also does not anticipate changes in conservation program participation due to *G. n. ssp. neomexicana*.

Comment 12: One commenter expressed confusion over having received several different drafts of the WEA, with a primary concern of the Service's ability to enter property covered by an agreement to look for other federally-listed species.

Our Response: In an effort to address landowners concerns during early WEA development stages, the Service made several revisions to the draft agreement and provided copies to all interested landowners. As explicitly stated in the WEAs, the sole purpose of these agreements was for the Service and the landowner to work cooperatively to provide protection for *G. n. ssp. coloradensis*. The WEA explicitly states that the Service must coordinate a date and time for annual monitoring with the landowner in question. Further, an offer was made to several landowners to allow the landowner, or a representative of Wyoming (e.g., Department of Agriculture), to accompany Service personnel during each field visit in order to provide assurance that the Service was carrying out only those monitoring activities as agreed to within the WEA. The Service worked diligently to negotiate in good faith the specific terms of the agreement with all of the landowners.

Comment 13: A landowner questioned the long-term validity of "special management considerations" found in WEAs, and the possibility that environmental groups may sue in the future to change land management taking place on the landowner's private property.

Our Response: The WEAs are based on measurable and repeatable monitoring criteria using sound scientific principles and methods to evaluate habitat management success. These methods have been adopted and used widely by the NRCS and other agencies for many years (NRCS 2001). The scientific foundation of these agreements is solid and defensible (see "Exclusions Under Section 4(b)(2) of the Act" section for a more detailed discussion). In addition, there is nothing in the critical habitat provisions of the ESA that could mandate changes to or control of private actions on private property. Critical habitat designations affect only Federally conducted, funded, or permitted actions.

Comment 14: One landowner expressed concern that "the Act seems to have turned into a single agency that seems to want an end to entire lifestyles and industries while not using common sense in designation."

Our Response: We believe that our approach to this critical habitat designation is a common sense approach that provides many opportunities for the landowner and the Service to work cooperatively to protect this species in a manner that is economically viable to the individual landowners. The Service has reduced the proposed designation by 1,038 ha

(2,564 ac) along 59 stream km (37 mi) based on the development of Wildlife Extension Agreements alone, and by 964 ha (2,384 ac) along approximately 41 km (25 mi) of stream based on surveys conducted this year that showed that primary constituent elements were not present. We agree that many landowners are excellent stewards of their lands and provide benefits to fish, wildlife, plants and their habitats, and we look forward to continuing to work with landowners in the future (see "Exclusions Under Section 4(b)(2) of the Act" section as well as our Response to Comment 19).

Comment 15: One landowner expressed strong support for using Wildlife Extensions Agreements to protect *G. n. ssp. coloradensis* and its habitat on private lands instead of critical habitat. In this landowner's view, there is no doubt that greater benefit is afforded to the species by protecting occupied lands with WEAs rather than designating those lands as critical habitat. This landowner further states that given that the majority of known *G. n. ssp. coloradensis* populations occur on private land, and that critical habitat will not change land management on these lands, therefore designating critical habitat on private land is of no benefit to the plant.

In contrast, one comment, representing the views of four different environmental groups, strongly opposed using Wildlife Extension Agreements instead of designating critical habitat. The groups state that such voluntary agreements as WEAs, which expire after 15 years, cannot be considered adequate mechanisms to exclude critical habitat. They claim that there is no evidence that, such agreements meet the Service's own criteria needed for such a conservation/management plan to provide adequate management protection; the agreements will increase *G. n. ssp. coloradensis* population sizes or restore its habitat; funding will be secured to implement such agreements; biological goals are central to the agreements; or the 15-year time span will be sufficient to realize goals. They state that exempting any populations from designation of critical habitat makes no sense biologically because the Service has stated that all proposed units are necessary to account for demographic uncertainty, low genetic variation, and limited opportunity to colonize new habitats. They conclude by stating that they support such agreements in addition to (not in place of) critical habitat, and suggest that the high level of landowner participation in *G. n. ssp. coloradensis* conservation by allowing the Service to conduct surveys during the summer of 2004 indicates a

willingness of landowners to continue to do so in the future.

Our Response: We believe that the WEAs provide benefits to this species that outweigh the benefits of designating critical habitat (see "Exclusions Under Section 4(b)(2) of the Act" section for a more detailed discussion).

Comment 16: One commenter disagreed with the Service using historical records and extrapolations thereof for designating critical habitat rather than recent field surveys.

Our Response: The Service must use the best scientific and commercial data available for such designations. Because we agree with the comment that recent data should be used, the Service conducted field surveys during the summer of 2004 in order to update its records on which to base the final critical habitat designation. After conducting these surveys and updating records on presence of PCEs, suitable habitat, and species occurrence, the Service eliminated 964 ha (2,384 ac) along 41 km (25 mi) of stream from the final critical habitat designation. These are in addition to the 1,038 ha (2,564 ac), along 59 km (37 mi) of stream, eliminated due to WEAs.

Comment 17: One landowner requested to be dropped from critical habitat based on the following reasoning. The proposed rule states that "critical habitat identifies specific areas, both occupied and unoccupied, that are essential to the conservation of a listed species that may require special management consideration and protection. Occupied habitat 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." The landowner claimed that because special management was not necessary on the private property in question, the property should not be included in critical habitat.

Our Response: During discussions with the commenting landowner, the Service stated that the current management in terms of livestock grazing and hay production appeared to be meeting the conservation needs of *G. n. ssp. coloradensis* as evidenced by the presence of thousands of plants and many subpopulations. Indeed, the habitat appeared to meet the needs of the species based on surveys conducted during 2004. By acknowledging that the private property in question is providing for the conservation needs of *G. n. ssp. coloradensis* and that no changes are needed at this time, we are stating that the current management

provides the special management and protection that critical habitat requires. Therefore, without an agreement to guarantee that this special management and protection will continue (*i.e.*, a WEA), this management and protection could disappear. Therefore, we commend the landowner on the excellent land stewardship currently in place that provides for the conservation needs of this species, but must note that the statutory considerations for special management apply to the future as well as the present.

Comment 18: One comment, representing four environmental organizations, expressed concern that the environmental organizations were not provided a report of the 2004 surveys conducted by the Service. They stated that, consequently, they could not evaluate the adequacy of the proposed critical habitat.

Our Response: The “report” requested by the commenters has not yet been completed. Early drafts of the report did exist during the open comment period, but we determined that it was neither necessary nor appropriate to make the text of the drafts to be available to the commenters as it was not complete. Instead, we made a summary of the data collected in 2004 available to the public during the open comment period, and we provided that data to these commenters well before the close of the comment period. We did not rely on the draft report in making our final determination of critical habitat for *G. n. ssp. coloradensis*, but we did rely on the data that was released to commenters.

Comment 19: While the Service discusses the importance of maintaining connectivity within and between populations to facilitate pollen flow and population expansion, it excludes the importance of seed dispersal and the importance of protecting habitat downstream of known populations where new populations could be established. Similarly, the commenter suggests that the Service must expand its designation to include other stream reaches with PCEs for recovery habitat, and that the Service has not taken into consideration range contraction of the species. The Service cannot seek to maintain the status quo by only protecting existing populations if recovery is its true goal.

Our Response: Although the Service did not explicitly state the importance of seed dispersal, it is implied in our statement regarding “population expansion” on page 47837 of the proposed rule (69 FR 47834). Population expansion cannot occur without seed dispersal for a sexually reproducing

plant such as *G. n. ssp. coloradensis*, which does not produce rhizomes (underground stems) or stolons (above ground stems). Additionally, we believe that for a plant characterized by a very short distance of seed dispersal (typically less than 1 m for this species), pollen flow should be emphasized as a primary mechanism of gene flow and concomitant increase in genetic variation.

Regarding the need for expansion of the critical habitat designation, a substantial effort was made to provide for linkage of individual subpopulations and provide for colonization downstream via seed dispersal to aid in species recovery (please see response Comment 1 (Peer)). As evidenced throughout the description in the proposed rule of several of the units, the Service has protected suitable habitat between, and downstream from, known subpopulations based on the best available scientific information. Habitat that does not contain PCEs was eliminated as it is not essential for the conservation of this species. The Service believes that the current extent of contiguous critical habitat, in addition to habitat protected by WEAs, provides for the conservation needs of the species to colonize new habitats and expand populations, and provides for recovery needs of the species. Therefore, there is no need to consider repatriation to the entire historic range. However, the Service acknowledges that recovery planning may indicate a need for additional habitat.

Comment 20: The Service acknowledges the importance of flooding and scouring events to the ecology of the *G. n. ssp. coloradensis*, but does not adequately attempt to protect and restore these important ecological processes, and the economic analysis does not address the costs and benefits of maintaining instream flows and preventing water diversions. The Service must do all that it can to retain flooding and scouring events in suitable habitat for the *G. n. ssp. coloradensis* or to achieve recovery.

Our Response: We agree that it is important to do all that we can to retain flooding and scouring events in suitable habitat for the plant. During the development of the proposed rule, we spent a considerable amount of time examining maps and field conditions in areas that may provide natural hydrological patterns for *G. n. ssp. coloradensis*, but we were not able to identify any such areas. As discussed in the economic analysis, Section 4.2.5, where a Federal nexus exists, costs related to water diversions, and in the case of this economic analysis, costs

related to water diversion activities are not expected.

However, discussions with several landowners revealed that natural processes such as flood events continue to provide some flooding and scouring events needed for colonization of *G. n. ssp. coloradensis*. For example, at least five different landowners described at least one significant flood event that occurred over the past ten years that was responsible for scouring out habitat for plants with a colonizing habit—three of whom believe that such an event was responsible for at least one subpopulation of *G. n. ssp. coloradensis* located on their property today that was previously undiscovered during surveys. As the Service continues to work with landowners while implementing WEAs over the next several years, we will continue to explore opportunities to enhance, restore, and conserve hydrological regimes.

Comment 21: On page 8 of the economic analysis, the Service acknowledges that overgrazing may threaten the *G. n. ssp. coloradensis*. However, page 4–11 of the economic analysis implies that the timing, not the intensity, of livestock grazing impacts the species.

Our Response: We agree that while grazing can be an important land management tool, overgrazing can detrimentally affect the plant. As discussed in Section 4.2.1.1 of the economic analysis, the timing of grazing, regardless of intensity, is potentially dangerous to the plant if it occurs during the flowering and seed setting in July and August. Consequently, the economic analysis quantifies the impacts to ranchers from excluding the core subpopulation from all grazing from late May until August and captures the economic impacts of this exclusion. The economic impacts would not vary by grazing intensity since the costs are based on the quantity of forage produced by the excluded area.

As noted in comments provided by two peer reviewers knowledgeable about the ecological requirements of *G. n. ssp. coloradensis* (see Comment 7 (Peer)), grazing may be an important tool for maintaining open habitat for this species. There is a growing body of evidence documenting the importance of decreasing the level of competition with other plants to maintain suitable (*i.e.*, more open and less over-grown) habitat for *G. n. ssp. coloradensis* (Munk *et al.* 2002, Burgess 2003, Heidel 2004a and 2004b).

Comment 22: One commenter stated that the Service had information about potential populations in the vicinity of

the designation yet outside of the area inventoried, yet the Service made no attempt to verify these reports. Similarly, the Service should check herbaria records in addition to CNHP and WNDD records to document known locations of *G. n. ssp. coloradensis*.

Our Response: The Service sought out and used the best available information for this designation. We worked hard to contact landowners to gain access to historical areas, hired a full-time professional botanist to survey over 90 mi (145 km) of primarily private lands during the summer of 2004, and updated museum and database records. We were able to gain access on approximately 80 percent of these locations. While the Service has an obligation to follow up on potential occurrences provided by various sources (e.g., informal reports, credible leads from other field botanists), we need the permission of the landowner to access lands. Therefore, while in some cases we had reason to believe that private lands adjacent to surveyed areas may have been occupied by the plant, unless permission was granted by the landowners, we did not survey the land. However, if the presence of plants on that property was previously verified, yet access was not allowed to update those surveys, we assumed presence and these areas were included in this designation. We believe that all available and pertinent information concerning locations for the species was confirmed and pertinent information was included in this designation to the extent possible.

Comment 23: We are unsure why the Service would have eliminated areas that did not contain the appropriate vegetation or associated native plant species as indicated on page 47838 of the proposed rule (69 FR 47834).

Our Response: The Service eliminated areas based on observations, surveys, and recommendations of a professional botanist. Those areas referred to by the commenter were typically characterized by exclusively upland species that would never be observed in the same habitat as *G. n. ssp. coloradensis* (e.g., *Kochia scoparia*). If the PCEs were present, then the Service considered the habitat was suitable for *G. n. ssp. coloradensis*.

Comment 24: The proposed rule states that critical habitat provides little additional protection to most species while consuming significant amounts of conservation resources was viewed as incorrect and inappropriate. The comment states that critical habitat does provide protections beyond those conveyed under other parts of the Act, and that the Center for Biological

Research has used the Service's own data to show that listed species with critical habitat are less likely to be declining and over twice as likely to be recovering as listed species without critical habitat. The commenter notes that 2004 surveys and concomitant information collected regarding the conservation needs of the species would not have occurred without the need to designate critical habitat. The commenter further states that while the Service explains the accelerated schedules of court-ordered designations and the cost of publishing the designations, the Service had four years to complete this designation but did not begin work until March 2004.

Our Response: See Response to Comment 5.

Comment 25: The preferred alternative of the Environmental Assessment fails to provide for recovery of *G. n. ssp. coloradensis*. The Service proposes that conservation actions will be limited to only a subset of occupied habitat in which concentrated subpopulations of the plant are found. The statement in the Environmental Analysis that special management of WEAs will focus on the core of the concentrated subpopulations, the average size of which is 15 by 15 m (50 by 50 ft), contradicts the Service's assessment regarding the importance of future opportunities for colonization events for metapopulation persistence and species viability.

Our Response: The areas encompassed in the WEAs were based on the same areas that would have been designated as critical habitat at those locations. That is, the agreements protect the same areas that critical habitat would have protected but for the WEAs. This is consistent with the Service's position regarding the need to protect long-term metapopulation persistence and species viability by protecting as many populations as possible through conservation—either through critical habitat or WEAs.

We made a substantial effort to provide for linkage of individual subpopulations and provide for colonization downstream via seed dispersal to aid in species recovery. The Service believes that the current extent of contiguous critical habitat, in addition to habitat protected by WEAs, provides for the conservation needs of the species to colonize new habitats and expand populations, and provides for recovery needs of the species (also see Responses to Comment 1 and 19).

Eleven WEAs protect a total area encompassing 1,038 ha (2,564 ac) along 59 km (37 mi) of stream. This gives an average of 94 ha (233 ac) and 5.4 km (3.4

mi) of stream for each WEA. Within this average of 94 ha (233 ac) per WEA, there may be three or four subpopulations with an average size of 15 m² (50 ft²) (this average is based on actual sizes of populations observed in the field). While all 94 ha (233 ac) are included in the WEA, there may be a need to conduct special management actions on only one or two of these core subpopulations. For example, the WEA encompassed a total of 16 ha (40 ac) of habitat for *G. n. ssp. coloradensis*, yet the special management—which involved building a fence around the core subpopulation of plants because no other way could be found to protect it, encompassed an area of only 11 m by 17 m (35 ft by 55 ft). By acknowledging that private property in question is providing for the conservation needs of *G. n. ssp. coloradensis* and that no changes are needed at this time, we are stating that the current management being implemented by the landowner is providing the special management and protection that critical habitat requires (see Response to Comment 6). Therefore, it is typically not necessary to undertake additional special management on all acreage covered within the WEAs, only for those smaller areas still in need of additional protection.

Comment 26: The economic analysis presents a table of listed species that were included in previous consultations concerning *G. n. ssp. coloradensis*. The commenter asks us to clarify whether or not other listed species such as the peregrine falcon can be found in the proposed area.

Our Response: The Service has conducted past consultations on *G. n. ssp. coloradensis* in combination with numerous species, as indicated in the DEA, Exhibit 2–3 was listed. The peregrine falcon was removed from this table, and the final economic analysis reflects the removal of the peregrine falcon from this table.

Comment 27: Some costs (\$32/hour for the labor to repair fences, \$3,500 to provide a species list to Wyoming Department of Transportation, \$1,000 for a “no effect” concurrence letter) seem inflated.

Our Response: We acknowledge that a rancher may perform fence maintenance activities themselves, but we consider the regional custom rate for fence repair to be an approximation of the rancher's opportunity cost of performing fence maintenance activities. If agricultural operators do not own the machinery and equipment necessary to perform every farm and ranch operation, farmers and ranchers may need to hire custom operators to perform the activities. The

economic analysis is based on the assumption that the ranchers will hire a custom operator to perform annual fence maintenance. Rates for hiring others to perform work normally include the costs of owning equipment and performing the custom operation. The hourly rate used in the economic analysis for fence repair is a regional specific rate based on a survey of Wyoming custom operators, farmers, ranchers, and agribusiness personnel conducted by the University of Wyoming in 2002. As for administrative costs of section 7 consultation, these costs are based on a sample of consultation records from several Service field offices around the country as described in Exhibit 4–1 of the economic analysis.

Comment 28: The economic analysis needs to clarify and reconcile the pipeline projects described in the report and state whether routes have been finalized. If they have not been finalized, explain that the impacts of the pipeline are uncertain at this time.

Our Response: A representative of the company installing the pipeline reviewed a map of the proposed designation and stated that the pipeline project is not expected to impact known plant populations. Section 4.2.2 of the economic analysis was modified to eliminate the confusion.

Comment 29: A landowner who has since entered into a WEA explained that a road widening project adjacent to his property threatened *G. n. ssp. coloradensis* habitat, but it appears that this is not mentioned in the Road/Bridge section of the economic analysis.

Our Response: The area in question is the route 149 bridge crossing Lodgepole Creek, north of Burns, Wyoming. We contacted the Public Works Department of Laramie County, Wyoming, and they indicated there is no planned work along this section of road. Section 4.2.4.2 of the final economic analysis has been updated to incorporate this new information.

Comment 30: One commenter questioned why the draft economic analysis did not consider the potential economic benefits associated with the designation of critical habitat for the *G. n. ssp. coloradensis*.

Our Response: The draft economic analysis, 1.2.4, Benefits section, states “Given the limitations associated with estimating the benefits of proposed critical habitat designation for *G. n. ssp. coloradensis*, the Service believes that the benefits of proposed critical habitat designation are best expressed in biological terms that can be weighed against the expected costs impacts of the rulemaking.” The development of

quantitative estimates associated with the benefits of critical habitat is impeded by the lack of available studies and information relating to the size and value of beneficial changes that are likely to occur as a result of listing a species or designating critical habitat.

This analysis is used for helping the Service decide whether to exclude areas and whether the exclusions outweigh the benefits of inclusion. So, the economic analysis looks at the burden on the public of the regulation, and whether any areas have a disproportionate burden. The Service must then balance that against the benefits of including that area, including the benefits of the area to the species and the benefits of the species’ existence and recovery, to the extent these are provided by the critical habitat designation. This analysis is included in the 4(b)(2) discussion in the rules. We believe that monetizing may trivialize the benefits of critical habitat because there are no widely accepted ways for placing a dollar value on a biological benefit. In this analysis, several categories of benefits were identified, including preservation of open space and biodiversity, both of which can be associated with species conservation.

Summary of Changes From the Proposed Rule

In preparing our final designation of critical habitat for *Gaura neomexicana ssp. coloradensis*, we reviewed comments received on the proposed designation of critical habitat, and we made the following changes to our proposed designation:

(1) We made revisions based on 2004 surveys conducted this year to update our data on the species. We refined the final critical habitat designation and eliminated 964 ha (2,384 ac) along approximately 41 km (25 mi) of stream. Five units (Unit 2, Bear Creek East; Unit 4, Little Bear Creek/Horse Creek; Unit 5, Lodgepole Creek West; Unit 6, Lodgepole Creek East; and Unit 7, Borie) were reduced based on new 2004 information provided by habitat evaluations (see Critical Habitat Designation section).

(2) Under section 4(b)(2) of the Act, we excluded areas with Wildlife Extension Agreements (WEAs) which provide for conservation of *G. n. ssp. coloradensis* and its habitat. Specifically, we excluded 1,038 ha (2,564 ac) along 59 km (37 mi) of stream, a total of 30 percent of the proposed designation, in portions of Unit 4 (Little Bear Creek/Horse Creek), Unit 5 (Lodgepole Creek West), Unit 6 (Lodgepole Creek East), and Unit 7 (Borie), as well as the entire Unit 8

(Meadow Springs Ranch) based on development of WEAs. Collectively, we excluded a total of 1,808 ha (4,468 ac, 53%) of private lands and a total of 194 ha (480 ac, 6%) of lands owned by city municipalities from this final critical habitat designation based on updated surveys conducted in 2004 and development of WEAs (for a more information about the WEAs with landowners, see “Exclusions Under Section 4(b)(2) of the Act” section).

(3) Habitat supporting *G. n. ssp. coloradensis* populations located on the WAFB was not considered for proposed designation as critical habitat. The WAFB has an approved INRMP that provides a benefit to the species. Also, we did not include historical locations in Boulder, Douglas, and Larimer Counties in Colorado, because these areas did not contain the PCEs.

Critical Habitat

Critical habitat is defined in section 3 of the Act as—(i) The specific areas within the geographic 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 (Primary Constituent Elements, or PCEs) and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographic 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” means the use of all methods and procedures that are necessary to bring an endangered or a threatened species to the point at which listing under the Act is no longer necessary.

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.

To be included in a critical habitat designation, the habitat must first either be occupied at the time of listing with PCEs in need of special management or protection, or be unoccupied habitat that is, of itself, “essential to the conservation of the species.” Critical habitat designations identify, to the extent known using the best scientific and commercial data available, occupied habitat areas that provide essential life-cycle needs of the species

(i.e., areas on which are found the PCEs, as defined at 50 CFR 424.12(b)).

Occupied habitat 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).)

Our regulations state that, "The Secretary shall designate as critical habitat areas outside the geographic area presently occupied by the species only when a designation limited to its present range would be inadequate to ensure the conservation of the species" (50 CFR 424.12(e)). Accordingly, when the best available scientific and commercial data do not demonstrate that the conservation needs of the species so require, we will not designate critical habitat in areas outside the geographic area occupied by the species.

Our Policy on Information Standards under the Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), provides criteria, establishes procedures, and provides guidance to ensure that decisions made by the Service represent the best scientific and commercial data available. It requires Service biologists, to the extent consistent with the Act and with the use of the best scientific and commercial data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

Critical habitat designations do not signal that habitat outside the designation is unimportant to *G. n. ssp. coloradensis*. Areas outside the critical habitat designation will continue to be subject to conservation actions that may be implemented under section 7(a)(1), and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard and the section 9 take prohibition, as determined on the basis of the best available information at the time of the action. We specifically anticipate that federally funded or assisted 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 outcome.

Methods and Criteria

For more information, please refer to the proposed critical habitat rule (August 6, 2004, 69 FR 47834).

Criteria Used To Identify Critical Habitat

In our delineation of the critical habitat units, we selected areas to provide for the conservation of *G. n. ssp. coloradensis* at seven sites where previously known subpopulations occur. Much of what is known about the specific physical and biological requirements of *G. n. ssp. coloradensis* is described in the Primary Constituent Elements section.

The Service worked with the WSA, the Wyoming Association of Conservation Districts, the WDA, the NRCS in Wyoming and Nebraska, the City of Fort Collins in Colorado, the City of Cheyenne in Wyoming, and several individual landowners to develop Wildlife Extension Agreements (WEAs) to provide for the conservation of *G. n. ssp. coloradensis*. These WEAs include specific on-the-ground actions to alleviate specific threats, such as: allowing the Service access to private land to conduct annual monitoring of *G. n. ssp. coloradensis* populations to evaluate success of management actions under the agreement; establishing an adaptive management approach to evaluate success of management actions under the agreement; and facilitating the collection of data needed for future recovery of the species. WEAs provide specific measures to address potential threats due to herbicide application, livestock grazing, and hay production. Through cooperation and communication between landowners and the Service, such WEAs provide for the conservation needs of *G. n. ssp. coloradensis* above and beyond what would be achievable through the designation of critical habitat on private lands while meeting the needs of individual landowners. Working cooperatively with private landowners to protect habitat for *G. n. ssp. coloradensis* through WEAs is the Service's preferred approach to protecting the species on private lands. The Service has pursued such agreements to the fullest extent practicable prior to finalizing critical habitat. In several locations throughout the species' known range of occurrence, the Service has determined that the benefits of excluding an area from critical habitat designation subject to one of these agreements outweigh the benefits of including it in the final critical habitat designation. Currently, 11 such agreements are in place.

Accordingly, the Service has excluded 1,038 ha (2,564 ac) along 59 km (37 mi) of stream from final critical habitat designation pursuant to section 4(b)(2) of the Act.

The Service has worked with landowners to gain access to private lands to survey for plant populations. Most of these populations had not been surveyed since 1998, earlier in some cases. Field surveys were conducted during the summer of 2004 within 80 percent of all habitat previously known to be occupied by *G. n. ssp. coloradensis*.

Reproductively mature *G. n. ssp. coloradensis* plants were found on 35 of the previously known subpopulation locations, or approximately 60 percent; 24 new subpopulations also were identified, in addition to many scattered individual plants between subpopulations. Based on information provided by these surveys, the Service has further refined the critical habitat designation from the original proposal.

We designate critical habitat on lands on which the PCEs are found. While the species was known historically from several additional locations in northern Colorado and southeastern Wyoming, these populations are believed to be extirpated (Fertig 1994) and are not included in the designation.

Much of the survey data on which this designation is based represents the number of flowering individuals during one point in time. Because of the annual fluctuation in population size for this species (ranging from 200 percent), and because the number of flowering individuals each year depends upon local environmental factors that vary substantially year to year (e.g., precipitation), it is likely that other individual plants and subpopulations exist but were not identified during previous, or 2004, surveys. This is particularly true for those areas containing the PCEs for the species that occur between subpopulations. Not only are these areas essential to achieving the long-term conservation goal of protecting the maximum number of populations possible, but they are essential in maintaining gene flow between populations via pollen flow to maintain, and potentially increase, local population genetic variation.

In our delineation of the critical habitat units, we selected areas to provide for the conservation of *G. n. ssp. coloradensis* in all areas where it is known to occur, except WAFB (see discussion in "Exclusions From Critical Habitat, Lands Under U.S. Air Force Jurisdiction" section) and those areas for which WEAs have been secured. All units are essential because *G. n. ssp.*

coloradensis populations exhibit significant demographic uncertainty, contain very low genetic variation, and have very little opportunity to colonize new geographic areas with which to balance local extinction events. We believe the designation is of sufficient size to maintain ecological processes and to minimize secondary impacts resulting from human activities and land management practices occurring in adjacent areas. We mapped the units with a degree of precision commensurate with the available information and resources.

Although we are not designating sites other than where populations are known to occur, we do not mean to imply that habitat outside the designation is unimportant or may not be required for recovery of the species. Areas that support newly discovered populations in the future, but are outside the critical habitat designation, will continue to be subject to the applicable prohibitions of section 9 of the Act and the regulatory protections afforded by the section 7(a)(2) jeopardy standard. In addition, for such populations discovered on private lands, the Service will consider entering into conservation agreements with the landowners similar to the ones contemplated for currently known populations.

We often exclude non-Federal public lands and private lands that are covered by an existing operative HCP and executed Implementation Agreement (IA) under section 10(a)(1)(B) of the Act from designated critical habitat because the benefits of exclusion outweigh the benefits of inclusion as discussed in section 4(b)(2) of the Act. There are no HCPs in place for *Gaura neomexicana* ssp. *coloradensis* at this time. Department of Defense lands with an approved INRMP also are excluded from critical habitat. We have approved the INRMP for WAFB, which provides a benefit to *G. n. ssp. coloradensis*. Consequently, we did not consider habitat supporting populations located on WAFB for designation as critical habitat.

Designating critical habitat is one mechanism for providing habitat protection for *G. n. ssp. coloradensis* populations. However, the benefits of protecting extant populations through conservation agreements, by partnering with private landowners on whose property populations occur, outweigh the benefits of designating critical habitat for this species. Greater protection results from conservation agreements that restrict specific types of actions (e.g., indiscriminate application of herbicides; overgrazing; timing of hay

cutting) undertaken by private landowners that may adversely impact *G. n. ssp. coloradensis* or its habitat and that would not involve a Federal nexus subject to consultation under section 7(a)(2) of the Act. The designation of critical habitat, in and of itself, does not provide similar restrictions. A review of the complete consultation history of *G. n. ssp. coloradensis* has revealed that none of the actions undertaken on private lands resulting in these threats to the species have ever required consultation under the Act. In addition, there is no mechanism in the critical habitat provisions of the ESA to either promote voluntary active conservation measures or to require them.

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 are required to base critical habitat determinations on the best scientific and commercial data available and to consider those physical and biological features (PCEs) that are essential to the conservation of the species, and 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 PCEs for *Gaura neomexicana* ssp. *coloradensis* include those habitat components essential for the biological needs of rosette growth and development, flower production, pollination, seed set and fruit production, and genetic exchange. *G. n. ssp. coloradensis* typically lives and reproduces on subirrigated, stream-deposited soils on level or slightly sloping floodplains and drainage bottoms at elevations of 1,524 to 1,951 m (5,000 to 6,400 ft). Most colonies are found in low depressions or along bends in wide, active, meandering stream channels a short distance upslope of the active channel, and may occur at the base of alluvial ridges at the interface between riparian meadows and drier grasslands (Fertig 2001). Average annual precipitation within its range is 33 to 41 cm (13 to 16 in), primarily in the form of rainfall (Fertig 2000). Soils in *G. n. ssp. coloradensis* habitat are derived from conglomerates, sandstones, and tuffaceous mudstones and siltstones (i.e.,

derived from spongy, porous limestone formed by the precipitation of calcite from the water of streams and springs) of the Tertiary White River, Arikaree, and Ogallala formations (Fertig 2000).

Ecological processes that create and maintain *G. n. ssp. coloradensis* habitat are important PCEs. Essential habitat components to *G. n. ssp. coloradensis* occur in areas where past and present hydrological and geological processes have created streams, floodplains, and conditions supporting favorable plant communities. Historically, *G. n. ssp. coloradensis* habitat has been maintained along streams by natural flooding cycles that periodically scour riparian vegetation, rework stream channels and floodplains, and redistribute sediments to create vegetation patterns favorable to *G. n. ssp. coloradensis*. *G. n. ssp. coloradensis* commonly occurs in communities including *Agrostis stolonifera* (redtop) and *Poa pratensis* (Kentucky bluegrass) on wetter sites, or *Glycyrrhiza lepidota* (wild licorice), *Cirsium flodmanii* (Flodman's thistle), *Grindelia squarrosa* (curlytop gumweed), and *Equisetum laevigatum* (smooth scouring rush) on drier sites (Fertig 1994). Both of these habitat types are usually intermediate in moisture between wet, streamside communities dominated by *Carex spp.* (sedges), *Juncus spp.* (rushes), and *Typha spp.* (cattails), and dry upland shortgrass prairie. Where hydrological flows are controlled to preclude a natural pattern of habitat development, and other forms of disturbance are curtailed or eliminated, a less favorable mature successional stage of vegetation will develop, resulting in the loss of many of these plant associates.

Hydrological processes, and their importance in maintaining the moisture regime of habitat preferred by *G. n. ssp. coloradensis*, also have an important direct effect on seed germination and seedling recruitment. Analysis by Heidel (2004a) demonstrated a significant positive correlation between census number and net growing season precipitation 2 years prior to census. Important direct effects of moisture on *G. n. ssp. coloradensis* establishment and recruitment also have been demonstrated by the appearance of high numbers of new vegetative plants within 27 days after a 100-year flood event at WAFB on August 1, 1985 (Rocky Mountain Heritage Task Force 1987 cited in Heidel 2004a).

The long-term availability of favorable *G. n. ssp. coloradensis* habitat also depends on impacts of drought, fires, windstorms, herbivory, and other natural events. *G. n. ssp. coloradensis*

requires open, early- to mid-succession riparian habitat experiencing periodic disturbance. While non-natural disturbance (e.g., road construction, housing development) may encourage establishment of noxious weeds, periodic disturbance is necessary to control competing vegetation, and to create open, bare ground for seedling establishment (Fertig 2001). *Salix exigua* (coyote willow), *Cirsium arvense* (Canada thistle), and *Euphorbia esula* (leafy spurge) may become locally dominant in *G. n. ssp. coloradensis* habitat that is not periodically flooded or otherwise disturbed, resulting in decline of the species. Research has demonstrated negative impacts on *G. n. ssp. coloradensis* populations from competition with locally abundant noxious weeds, forbs, and grasses (Munk *et al.* 2002, Heidel 2004b).

Based on our knowledge to date, the PCEs for *Gaura neomexicana ssp. coloradensis* are:

(1) Subirrigated, alluvial soils on level or low-gradient floodplains and drainage bottoms at elevations of 1,524 to 1,951 m (5,000 to 6,400 ft).

(2) A mesic moisture regime, intermediate in moisture between wet, streamside communities dominated by sedges, rushes, and cattails, and dry upland shortgrass prairie.

(3) Early- to mid-succession riparian (streambank or riverbank) plant communities that are open and without dense or overgrown vegetation

(including hayed fields that are disced every 5–10 year at a depth of 8–12 inches, grazed pasture, other agricultural lands that are not plowed or disced regularly, areas that have been restored after past aggregate extraction, areas supporting recreation trails, and urban/wildland interfaces).

(4) Hydrological and geological conditions that maintain stream channels, floodplains, floodplain benches, and wet meadows that support patterns of plant communities associated with *G. n. ssp. coloradensis*.

Existing features and structures within the boundaries of the mapped units, such as buildings, roads, parking lots, other paved areas, landscaped areas, regularly plowed or disced agricultural areas, and other features not containing any of the PCEs are not critical habitat.

Special Management Considerations or Protections

When designating critical habitat, we assess whether the areas on which the PCEs are found and which may require special management considerations or protections. For *G. n. ssp. coloradensis*, special management considerations include maintaining existing management regimes that produce surface or subsurface water flows that provide the essential hydrological regime that supports the species (PCEs 1, 2, and 4); appropriate application of herbicides used to control noxious

weeds (PCE 3); and preventing harmful habitat fragmentation from residential and urban development that detrimentally affects plant-pollinator interactions, local hydrologic patterns and moisture regimes, leads to a decline in species reproduction, and increases susceptibility to overgrowth by non-native plant species (PCEs 1, 2, 3, and 4). While excessive grazing can lead to changes in essential habitat conditions (e.g., increases in soil temperature resulting in loss of moisture, decreases in plant cover, and increases in non-native species), managing for appropriate levels of grazing provides an important management tool with which to maintain open habitat needed by the species (PCEs 2 and 3).

Critical Habitat Designation

We are designating seven units as critical habitat for *G. n. ssp. coloradensis*. The critical habitat areas described below constitute our best assessment at this time of the areas essential for the conservation of *G. n. ssp. coloradensis*. The units are—(1) Tepee Ring Creek in Wyoming; (2) Bear Creek East in Wyoming; (3) Bear Creek West in Wyoming; (4) Little Bear Creek/Horse Creek in Wyoming; (5) Lodgepole Creek West in Wyoming; (6) Lodgepole Creek East in Wyoming; and (7) Borie in Wyoming.

The approximate area encompassed within each critical habitat unit is shown in Table 1.

TABLE 1.—FINAL CRITICAL HABITAT UNITS FOR GAURA NEOMEXICANA SSP. COLORADENSIS

Critical habitat unit	Proposed acres (hectares)	Final acres (hectares)	Percentage change from proposal
Unit 1: Tepee Ring Creek	107 (43)	107 (43)	0
Unit 2: Bear Creek East	801 (324)	358 (145)	55
Unit 3: Bear Creek West	500 (202)	500 (202)	0
Unit 4: Little Bear Creek/Horse Creek	2,480 (1,004)	807 (327)	67
Unit 5: Lodgepole Creek West	1,067 (432)	902 (365)	15
Unit 6: Lodgepole Creek East	1,683 (681)	378 (153)	78
Unit 7: Borie	1,141 (462)	486 (197)	57
Unit 8: Meadow Springs Ranch	707 (286)	0 (0)	100
Total	8,486 (3,434)	3,538 (1,432)	

The majority of the acreage occurs on privately owned land. We know of no Federal, tribal, or military lands within these boundaries. There is a small portion of land within Units 1, 2, 3, 4, 5, 6, and 7 that are owned by the State of Wyoming. We present brief descriptions of all units, and reasons why the PCEs essential for the conservation of *G. n. ssp. coloradensis* may be in need of special management or protection, below.

Unit 1: Tepee Ring Creek

Unit 1 consists of 43 ha (107 ac) along 2.4 km (1.5 mi) of Tepee Ring Creek in Platte County, Wyoming, and is under private ownership. One subpopulation of *G. n. ssp. coloradensis* has been found along Tepee Ring Creek in the lower SE corner of T21N R68W Section 2. Habitat is moist meadow along the stream. Habitat along this stream reach throughout this unit is primarily identified as PEMA (palustrine emergent temporarily flooded) wetland

intermixed with PEMC (palustrine emergent seasonally flooded) wetland, according to National Wetlands Inventory terminology (Service 1993). It is likely that *G. n. ssp. coloradensis* occurs in Section 1 downstream of the subpopulation in Section 2, based on presence of PCEs but this area is not included in this unit. This unit contains areas which represent the northernmost extent of the subspecies' known range of occurrence. This unit is separated by approximately 40 km (25 linear mi)

from the closest population and provides conditions that are conducive to locally adaptive genetic variability not found in other populations. This unit may require special management for appropriate levels of grazing needed to maintain open habitat, and the application of herbicides used to control noxious weeds.

Unit 2: Bear Creek East

Unit 2 consists of 145 ha (358 ac) along 8 km (5 mi) of the South Fork of the Bear Creek and the Bear Creek in Laramie County, Wyoming. Surveys during 2004 revealed reproductively mature *G. n. ssp. coloradensis* plants in the South Fork of the Bear Creek from T19N67W Section 25, extending northeast to Section 17, and within T19N66W Section 11, bordering Section 12. This unit is primarily under private ownership. Habitat within this stream reach is primarily identified as PEMC intermixed with PEMA. Surveys during 2004 revealed that Section 36 on the southwestern end of the originally proposed unit, and Sections 16, 9, 10 and the eastern half of Section 12 contained no *G. n. ssp. coloradensis* plants and, that in some areas containing PCEs were not present. Therefore, these areas were removed from this unit. This unit has historically supported a number of *G. n. ssp. coloradensis* populations in a variety of habitat types, and is located at the furthest point downstream within the Bear Creek drainage. Disconnected from other population gene pools, conditions surrounding subpopulations within this area are conducive to locally adapted genotypes not found in other populations. Special management in this unit may require timing the cutting of hay with fruit and seed set of *G. n. ssp. coloradensis*, and for the application of herbicides used to control noxious weeds.

Unit 3: Bear Creek West

Unit 3 consists of three stream reaches encompassing a total of 202 ha (500 ac) along 11.7 km (7.3 mi) of stream within the Bear Creek drainage in Laramie County, Wyoming. This unit is primarily under private ownership, but includes some Wyoming State lands. This unit may require special management for appropriate levels of grazing needed to maintain open habitat, and the application of herbicides used to control noxious weeds.

Reach 1: Habitat within this reach is semi-moist meadows on flat benches and streambanks along an intermittent stream. Plants are most abundant in areas with low thistle density and

heavily browsed willow, and are absent from adjacent, ungrazed areas with dense willow thickets (WNDD 2004). Several subpopulations of *G. n. ssp. coloradensis* were found during surveys of 2004 throughout this entire reach. This reach supports a large population with good reproduction and has good condition.

Reach 2: Habitat within this reach consists of hummocky banks of loamy clay soil and gravelly, sloping terraces in semi-moist, closely grazed *Poa pratensis* (Kentucky bluegrass)/*Elymus* spp. (wild rye) streamside meadow at the edge of dense *Carex aquatilis* (Nebraska sedge)/*Juncus balticus* (Baltic rush) community (WNDD 2004). Several subpopulations of *Gaura neomexicana* ssp. *coloradensis* were found during surveys of 2004 throughout this entire reach. This location represents the uppermost elevation within the species' known range of occurrence. Historically it has supported a large population located in habitat that contains few threats; conditions that remain present today.

Reach 3: Habitat within this reach consists of three types—(1) Seasonally wet *Juncus balticus*/ *Agrostis stolonifera* (redtop)/ *Poa pratensis* community on subirrigated gravelly-sandy soil in low depressions a distance from the current stream channel; (2) streambank terraces of dark-brown loamy clay in dense *Helianthus nuttallii* (Nuttall's sunflower)/ *Solidago canadensis* (Canada goldenrod)/ *Phleum pratense* (timothy) grass community; and (3) grassy terrace dominated by *Agrostis stolonifera*, *Poa pratensis*, *Elymus smithii* (wild rye), and *Melilotus albus* (white sweetclover) on brown clay-loam (WNDD 2004). Several subpopulations of *G. neomexicana* ssp. *coloradensis* were found during surveys of 2004 throughout this entire reach, including T18N R68W Section 21 and 22. There is a natural break in habitat approximately in the center of Section 21, at which point the PEMA habitat changes to scrub-shrub and continues upstream (to the southwest) through the remainder of Section 21. We did not designate critical habitat beyond this natural break.

Unit 4: Little Bear Creek/Horse Creek

Unit 4 consists of two stream reaches encompassing a total of 327 ha (807 ac) along 18.8 km (11.7 mi) of stream within the Little Bear Creek and Horse Creek drainages in Laramie County, Wyoming. This unit is primarily under private ownership, but includes some Wyoming State lands. This unit may require special management for appropriate levels of grazing needed to maintain open habitat in some areas; special

management to maintain surface or subsurface water flows; and for the application of herbicides used to control noxious weeds.

Reach 1: Surveys conducted during 2004 found scattered individual plants and subpopulations of *G. n. ssp. coloradensis* throughout most of this reach. One or more PCEs were not present within the portions of this reach that the Service eliminated from the final critical habitat designation. Habitat throughout Little Bear Creek and the Paulson Branch stream reaches is primarily identified as PEMC intermixed with PEMA. This reach has supported a large number of subpopulations with a moderate-to-large number of plants over the years. Because this reach is reproductively isolated from any others, conditions surrounding resident subpopulations are conducive to locally adapted genetic variation important to future species persistence.

Reach 2: Surveys conducted during 2004 found many subpopulations and individual plants of *G. n. ssp. coloradensis* throughout most of the Horse Creek drainage originally proposed as critical habitat, including Brunyansky Draw. One or more of the PCEs was not present within the Horse Creek drainage west of Interstate 25; therefore, the Service eliminated this portion of the original proposal from the final critical habitat designation. With the exception of the far eastern portion of the originally proposed reach, the remainder of the proposed reach within Horse Creek was included in a WEA for the conservation of *G. n. ssp. coloradensis*, and was dropped from the final critical habitat designation. While the far eastern end of the proposed designation was not surveyed during 2004 (permission was not granted by the landowner), observations during 2004 surveys of adjacent land revealed the presence of PCEs and suitable habitat. This area is not included in a WEA, PCEs are present, many subpopulations were found during 2004 surveys on adjacent land, and the last surveys conducted in this area found *G. n. ssp. coloradensis*, this portion of the proposed critical habitat was included in the final designation. The Service did not designate critical habitat beyond the center of Section 10 on the east end of this reach because the PCEs are not present.

Unit 5: Lodgepole Creek West

Unit 5 consists of 365 ha (902 ac) along 20.4 km (12.7 mi) of Lodgepole Creek in Laramie County, Wyoming. This unit is primarily under private ownership, but includes some Wyoming

State lands. Subpopulations of *G. n. ssp. coloradensis* have been found along Lodgepole Creek from T16N 68W Section 24 on the western edge of this unit, extending 19 km (12 mi) of stream east to T15N R66W Section 3. Surveys conducted during 2004 revealed several subpopulations of *G. n. ssp. coloradensis* present throughout T16N R67W Sections 19 and 20. Access was denied for 2004 surveys throughout the remainder of the unit. We finalized a WEA with the landowner of Sections 19 and 20 because the areas did not contain the PCEs for *G. n. ssp. coloradensis*. Sections 19, 20, and 24 were removed from this unit.

Habitat throughout the designated critical habitat stream reach is primarily identified as PEMC intermixed with PEMA. This unit has supported a large number of small, and a few large, subpopulations over the years in a variety of habitat types and land management practices. The number of subpopulations within the variety of habitat may represent a number of locally selected genotypes existing under conditions not found elsewhere, providing an important contribution to the long-term conservation of the species. This unit may require special management for appropriate levels of grazing needed to maintain open habitat in some areas, and management for reduced levels of grazing in others; special management to maintain surface or subsurface water flows; and the application of herbicides used to control noxious weeds.

Unit 6: Lodgepole Creek East

Unit 6 consists of one stream reach encompassing a total of 153 ha (378 ac) along 8.4 km (5.2 mi) of Lodgepole Creek in Laramie County, Wyoming. This unit is primarily under private ownership with some Wyoming State lands.

The area is managed for livestock grazing and hay production, mowed late in the season and used for winter pasture. Previous surveys found subpopulations of *Gaura neomexicana ssp. coloradensis* along Lodgepole Creek from Thompson Reservoir Number 2 in T14N R62W Section 4 on the eastern edge of this unit, extending west to T15N R64W Section 27 on the unit's western edge. However, 2004 surveys found neither subpopulations nor PCEs east of Section 32; therefore, the eastern end of this proposed unit was dropped from final critical habitat designation. Similarly, 2004 surveys found no subpopulations or PCEs necessary to provide suitable habitat in the entire eastern reach on the border of Wyoming and Nebraska (Reach 2 of the proposal);

therefore, the Service eliminated the eastern reach of the proposal from final critical habitat designation.

While 2004 surveys found subpopulations of the *G. n. ssp. coloradensis* throughout the originally proposed western reach (Reach 1) of this unit, WEAs were secured with several landowners throughout this area. Therefore, these areas were removed from this unit. For those areas designated as critical habitat, this stream reach is primarily identified as PEMC with sparse amounts of PEMA. This unit may require special management for appropriate levels of grazing needed to maintain open habitat in some areas, and management for reduced levels of grazing in others; special management to maintain surface or subsurface water flows; and the application of herbicides used to control noxious weeds.

Unit 7: Borie

Unit 7 consists of two stream reaches encompassing a total of 197 ha (486 ac) along 12.3 km (7.6 mi) of Diamond Creek and Lone Tree Creek in Laramie County, Wyoming. This unit is primarily under private ownership, with some Wyoming State lands. This unit may require special management for appropriate levels of grazing needed to maintain open habitat in some areas, and management for reduced levels of grazing in others; the application of herbicides used to control noxious weeds; and preventing harmful habitat fragmentation from residential and urban development.

Reach 1: This population is confluent with another population downstream along Diamond Creek on WAFB. Subpopulations of *G. n. ssp. coloradensis* have been found along Diamond Creek from the eastern boundary of this reach within T14N R67W Section 33, adjacent to WAFB, approximately 5.6 km (3.5 mi) of stream southwest to T13N R67W Section 6. Subpopulations also have been found along smaller, unnamed tributaries to Diamond Creek from the eastern edge of T14N R67W Section 32 approximately 3 km (2 mi) upstream within several small tributaries in Section 31 and T13N R67W Section 6.

Surveys conducted during 2004 found many subpopulations, including the largest subpopulation within the plant's known distribution, throughout all areas surveyed with the exception of two 0.8 km (0.5 mi) stream segments within Reach 1—these stream segments were dropped from the final critical habitat designation because they did not contain PCEs. Because a WEA was secured to provide for the conservation

needs of *G. n. ssp. coloradensis* within T13N R67W Sections 5 and 6, this portion of Reach 1 of the proposed critical habitat was dropped from the final designation. Similarly, because a WEA was secured to provide for the conservation of the only known subpopulation found within Reach 2 of the proposal, and the remainder of the proposed Reach 2 contained neither *G. n. ssp. coloradensis* plants nor PCEs, this entire reach was dropped from the final designation. Habitat throughout this entire reach is PEMC intermixed with PEMA. This reach supports a large number of plants within several subpopulations, conducive to the development of considerable local genetic variation contributing to the conservation of this species.

Reach 2: This reach was described as Reach 3 in the proposed critical habitat rule. Subpopulations of *G. n. ssp. coloradensis* have been found along Lone Tree Creek, from the northwest corner of T13N R67W Section 31, to 5 km (3 mi) upstream to T13N R68W Section 26. Because a WEA has been secured to provide for conservation of *G. n. ssp. coloradensis* within Sections 25 and 26, this reach has been reduced in size accordingly for the final critical habitat designation. This creek segment occurs at the southernmost point of the plant's distribution within Wyoming, with very little possibility for genetic exchange between local subpopulations and other populations that may be in the general area. Conditions are conducive to locally adapted subpopulations containing genetic variability important to the species' long-term persistence.

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.

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. Conference reports

provide conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. We may issue a formal conference report if requested by a Federal agency. Formal conference reports on proposed critical habitat contain an opinion that is prepared according to 50 CFR 402.14, as if critical habitat were designated. We may adopt the formal conference report 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)). The conservation recommendations in a conference report are advisory.

If a species is listed or critical habitat is designated, section 7(a)(2) 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. Through this consultation, the action agency ensures that their actions do not destroy or adversely modify critical habitat.

When we issue a biological opinion concluding that a project is likely to result in 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 action agency's legal authority and jurisdiction, that are economically and technologically feasible, and that the Director believes would avoid 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 reinstate consultation on previously reviewed actions in instances where critical habitat is subsequently designated 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 or conference with us on actions for which formal consultation has been completed, if those actions may affect designated critical habitat or adversely modify or destroy proposed critical habitat.

Federal activities that may affect *G. n. ssp. coloradensis* or its critical habitat will require section 7 consultation. Activities on private or State lands requiring a permit from a Federal agency, such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act, a section 10(a)(1)(B) permit from the Service, or some other Federal action, including funding (e.g., Federal Highway Administration or Federal Emergency Management Agency funding), also will continue to be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat and actions on non-Federal and private lands that are not federally funded, authorized, or permitted do not require section 7 consultation.

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 *G. n. ssp. coloradensis*. Federal activities that, when carried out, may adversely affect critical habitat for the *G. n. ssp. coloradensis* include, but are not limited to:

(1) Any action that changes existing water management practices including regulation of activities affecting waters of the United States by the Army Corps of Engineers under section 404 of the Clean Water Act;

(2) Regulation of water flows, damming, diversion, and channelization by any Federal agency; and,

(3) Road construction and maintenance, right-of-way designation, and regulation funded or permitted by the Federal Highway Administration.

We consider all critical habitat units to be occupied by the species based on the most recent survey data collected for populations of *G. n. ssp. coloradensis*. Survey results found subpopulations of plants, or scattered individual plants, throughout each critical habitat unit included in this designation. To ensure that their actions do not jeopardize the continued existence of the species, Federal agencies already consult with us on activities in areas currently occupied by the species or if the species may be affected by the action. We consider all lands included in this final designation

to be essential to the conservation of the *G. n. ssp. coloradensis*.

Exclusions From Critical Habitat

Lands Under U.S. Air Force Jurisdiction

As discussed in the proposed rule, Section 318 of fiscal year 2004 National Defense Authorization Act (Pub. L. 108-136) amended the Act to address the relationship of INRMPs to critical habitat by adding a new section 4(a)(3)(B). This provision prohibits the Service from designating as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an INRMP prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary of the Interior determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.

As described above, we identified habitat essential for the conservation of *G. n. ssp. coloradensis* in Laramie and Platte Counties in Wyoming. We have examined the INRMP for the WAFB to determine coverage for *G. n. ssp. coloradensis*. The INRMP identifies management issues related to conservation and enhancement of *G. n. ssp. coloradensis* and identifies goals and objectives that involve the protection of populations and habitat for this species. Some objectives for achieving those goals include: continue to participate in, and encourage development of, Cooperative Agreements and Memorandum of Understanding activities with Federal, State, and local government and support agencies; promote and support the scientific study and investigation of federally listed species management, conservation, and recovery; restrict public access in existing and potential habitat areas; and increase public education of federally listed species through management actions, the WAFB Watchable Wildlife Program, and a Prairie Ecosystem Education Center (WAFB 2001). Based on the beneficial measures for *G. n. ssp. coloradensis* contained in the INRMP for WAFB, we conclude that the INRMP provides a benefit to the species and have not included this area in the designation of critical habitat for *G. n. ssp. coloradensis* pursuant to section 4(a)(3) of the Act. We will continue to work cooperatively with the Department of the Air Force to assist the WAFB in implementing and refining the programmatic recommendations contained in this plan that provide benefits to *G. n. ssp. coloradensis*. The non-inclusion of WAFB demonstrates

the important contributions that approved INRMPs have to the conservation of the species. As with HCP exclusions, a related benefit of excluding Department of Defense lands with approved INRMPs is to encourage continued development of partnerships with other stakeholders, including States, local governments, conservation organizations, and private landowners to develop adequate management plans that conserve and protect *G. n. ssp. coloradensis* habitat.

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

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. An area may be excluded from critical habitat if it is determined that the benefits of exclusion outweigh the benefits of specifying a particular area as critical habitat, unless the failure to designate such area as critical habitat will result in the extinction of the species.

Wildlife Extension Agreements (WEAs)

We are excluding 11 properties from this final critical habitat designation that have WEAs in place for *Gaura neomexicana ssp. coloradensis* because we believe that they are appropriate for exclusion pursuant to the “other relevant factor provisions of section 4(b)(2). Nine of the WEAs are with private landowners in Wyoming, including one located in Unit 4 (1,300 ac), one in Unit 5 (145 ac), five in Unit 6 (439 ac), and two in Unit 7 (200 ac). Two WEAs are with city municipalities including the City of Cheyenne, Wyoming (within Unit 7, 200 ac), and the City of Fort Collins, Colorado (all of Unit 8, 280 ac).

The goals of the above WEAs for the properties are similar in nature and include the following elements:

(1) Monitoring *G. n. ssp. coloradensis* populations and habitat conditions. Data collected during monitoring will include the number of flowering adult plants and habitat condition. Habitat condition in areas managed primarily for livestock grazing will be evaluated according to NRCS (2001) rangeland condition assessment methodology. Data will provide information regarding the effects of land management activities on Colorado butterfly plant habitat and population growth;

(2) For those areas managed primarily for hay production, coordinating hay

cutting activity with needs of *G. n. ssp. coloradensis* seed production. The landowner agrees to inform the Service prior to the intended first cutting and allow the Service or its designee the opportunity to conduct Colorado butterfly plant surveys. The landowner agrees to allow the Service or its designee at least one additional opportunity to conduct Colorado butterfly plant surveys after the initial cutting, and prior to any additional cuttings. If three or more years of data collection reveals that the conservation needs of the Colorado butterfly plant could substantially benefit from changes in hay production activities, the landowner agrees to work with the Service to modify these activities to the extent feasible;

(3) Controlled application herbicides to no closer than 100 feet of a known subpopulation of *G. n. ssp. coloradensis*. Some areas included in WEAs that are occupied by the Colorado butterfly plant also are occupied by invasive plant species in need of control, such as Canada thistle and leafy spurge. While herbicide application may be required to control the spread of these invasive species, the landowner agrees to the application of herbicides no closer than 100 feet of a known subpopulation of the Colorado butterfly plant; and

(4) Managing livestock grazing activities in conjunction with conservation needs of *G. n. ssp. coloradensis*. It is assumed that the Colorado butterfly plant requires habitat in average, or above average, range condition according to the criteria identified above. However, if it is found that some other grazing intensity or timing of grazing is beneficial to the Colorado butterfly plant—resulting in above or below average range condition as defined by the NRCS criteria above—then that identified range condition will become the new target for that location to the extent practicable.

(1) Benefits of Inclusion

Designation of critical habitat provides important information on those habitats and their primary constituent elements that are essential to the conservation of the species. This information is particularly important to any Federal agency, State, county, local jurisdiction, conservation organization, or private landowner that may be evaluating adverse actions or implementing conservation measures that involve those habitats. The benefit of a critical habitat designation would ensure that any actions authorized, funded, or carried out by a Federal agency would not likely destroy or adversely modify any critical habitat.

All habitats within this designation are occupied. In the absence of critical habitat, any section 7 consultation for potential adverse effects to the species would not ensure adverse modification of critical habitat is avoided; however, the consultation would ensure the proposed action would not jeopardize the continued existence of the species in the wild.

Where WEAs are in place, our experience indicates that this benefit is small. Currently approved WEAs are already designed to address specific threats to provide for the conservation of *Gaura neomexicana ssp. coloradensis* and to implement conservation actions on the ground. Ninety percent of this species' occurrence is on private land, and, as a federally threatened plant, there are no prohibitions against take under the Act. The primary threats to the species on private land (nonselective herbicide use, grazing, and hay mowing) have no Federal nexus requiring section 7 consultation and so cannot be addressed through the statutory prohibition on adverse modification of critical habitat by Federal agency actions. Since the plants were listed in October 2000, we have no records indicating that section 7 consultation has been required for any such activities occurring on private lands. The likelihood that there will be any need to consult on such activities in the future is low.

(2) Benefits of Exclusion

Section 10(a)(1)(B) of the Act allows non-Federal parties planning activities that have no Federal nexus, but which could result in the incidental taking of listed animals, to apply for an incidental take permit—the application for which includes a Habitat Conservation Plan (HCP). However, such a process is unnecessary for a threatened plant such as *G. n. ssp. coloradensis* because there are no take prohibitions. Consequently, an HCP is an unduly demanding mechanism by which to protect the conservation needs of this species, one unlikely to be undertaken by landowners.

The WEAs, as written, meet the Service's criteria for providing adequate management protection, as outlined on page 47845 of the proposed rule (August 6, 2004, 69 FR 47834). First, each agreement provides a conservation benefit to the species (*i.e.*, the agreement must maintain or provide for an increase in the species' population, or the enhancement or restoration of its habitat within the area covered by the agreement). The WEAs provide that each landowner agrees to spray herbicide no closer than within 31

meters (100 feet) of a known subpopulation. The landowner agrees to allow Service representatives access to the project site for data collection and monitoring *G. n. ssp. coloradensis* populations on an annual basis. Data collected during monitoring will include the number of flowering adult plants and habitat condition. Habitat condition in areas managed primarily for livestock grazing will be evaluated according to NRCS rangeland conditions assessment methodology (NRCS 2001). The Service assumes that *G. n. ssp. coloradensis* requires habitat in average, or above average, range condition according to the criteria identified above. However, while it is known that livestock grazing is compatible with the habitat needs of *G. n. ssp. coloradensis*, the optimal level of grazing and resulting range conditions, is not known. Therefore, the grazing intensity or timing of grazing that is found to be optimal for *G. n. ssp. coloradensis*, resulting in above or below average range condition as defined by the NRCS criteria above, will become the new target for that location to the extent practicable.

For those areas primarily managed for hay production, the landowner agrees to inform the Service prior to the intended first cutting and allow the Service or its designee the opportunity to conduct *G. n. ssp. coloradensis* surveys. The landowner also agrees to allow the Service or its designee at least one additional opportunity to conduct *G. n. ssp. coloradensis* surveys after the initial cutting, and prior to any additional cuttings. If three or more years of data collection, as outlined above, reveals that the conservation needs of *G. n. ssp. coloradensis* could benefit from changes in hay production activities, the landowner agrees to work with the Service to modify these activities to the extent feasible. For example, the landowner may modify timing of hay cutting in areas of concentrated subpopulations of *G. n. ssp. coloradensis* to allow for seed production, or avoid the cutting altogether of small areas of subpopulations of the plants.

Secondly, the WEAs provide assurances that the conservation management strategies and actions will be implemented. Each WEA was developed by the Wyoming Ecological Services Field Office with each individual landowner to ensure that all data collection and management activities were readily achievable during the key July-August flowering season for this species, while meeting the needs of the landowner. The Wyoming Field Office is responsible for implementing

these agreements and is fully capable of accomplishing all objectives within each WEA each year.

Thirdly, each WEA provides assurances that the conservation strategies and measures will be effective. As outlined in details above, each WEA contains biological goals appropriate for the subpopulations on property included in the WEA, as well as provisions for monitoring, evaluating success, and modifying targets and management activities as more information becomes available through data collection. Considering the average lifespan of each plant is three years, a 15-year term allows for the management and study of five generations of plants, providing sufficient time to address effects of long term climatic trends (e.g., drought) and their interactions with approaches to management.

Lastly, while the Service criteria provide guidance to Service staff and the public on the nature of agreements highly likely to result in exclusions, they in no way limit the Secretary's discretion to exclude areas under the statutory standards, and so we could properly exclude these areas even if they did not comply with the Service's criteria for conservation agreements for the reasons set out below.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

Based on the above considerations, and consistent with the direction provided in section 4(b)(2) of the Act and the recent Federal District Court decision concerning critical habitat (*Center for Biological Diversity v. Norton*, Civ. No. 01-409 TUC DCB D. Ariz. Jan. 13, 2003), we have determined that the benefits of excluding the properties encompassed by the 11 WEAs, located in portions of Unit 4, Unit 5, Unit 6, Unit 7, and all of Unit 8s, outweigh the benefits of including them as critical habitat for *G. n. ssp. coloradensis*.

Under the WEAs outlined above, the landowners and the Service will protect *G. n. ssp. coloradensis* from the key threats to the species on private lands that would otherwise continue notwithstanding a critical habitat designation. For example, controlled use of herbicides will eliminate mortality and increase survival rates of rosettes and reproductively mature plants. Grazing management will reduce direct mortality of reproductively mature plants and enable soils to maintain moisture content necessary for seed germination and rosette recruitment by eliminating overgrazing. At the same time, grazing will maintain an early- to mid-successional open

habitat necessary for seed germination and rosette recruitment. Timing hay mowing to facilitate complete development of fruits and seeds will increase population size and ensure maintenance of genetic variation within populations. Increased fruit and seed set also will increase the long term viability of the population by contributing to the seed bank. Therefore, the WEAs that include actions to address the conservation needs of the species provide a biological benefit to the species, especially in light of concerns related to demographic uncertainty, low genetic variation, and limited colonization. All of the above allow the Service to manage the species proactively, instead of waiting for, and responding to, project level impacts involving a Federal nexus (which, as explained above, are expected to be infrequent).

In addition, by providing a perceived benefit to the landowner by exempting their lands from critical habitat in return for entering into this agreement, we encourage future cooperation in undertaking voluntary conservation measures for listed species by these and other landowners. We note again that the ESA has no statutory mechanism to either encourage or require the "special management or protection" that may be needed for the PCEs of listed species on non-Federal land that might be designated as critical habitat, and these types of voluntary agreements are currently the only mechanisms for obtaining these management actions. Because most landowners oppose critical habitat designation on their lands, such a designation generally precludes their willingness to undertake conservation measures on behalf of the species. Yet active conservation measures by landowners or land managers are generally the only way to conserve the species, often leaving us with exclusions from critical habitat as the most practical means of obtaining the "special management or protection" the designation was intended to secure.

In conclusion, we find that the exclusion of critical habitat from portions of Unit 4, Unit 5, Unit 6, Unit 7, and all of Unit 8 would most likely have a net positive effect on the conservation of *G. n. ssp. coloradensis* when compared to the conservation effects of a critical habitat designation. As described above, the overall benefits to this species of a critical habitat designation for these properties are relatively small. In contrast, we believe that this exclusion will enhance our existing partnership with these landowners, and it will set an example and provide positive incentives to other

non-Federal landowners who may be considering implementing conservation activities on their lands. We conclude that there is a higher likelihood of beneficial conservation activities occurring in these and other areas of southeastern Wyoming without designated critical habitat than there would be with designated critical habitat on these properties.

(4) Conclusion

In considering whether or not exclusion of these properties might result in the extinction of this species, the Service considered the impacts to the *Gaura neomexicana* ssp. *coloradensis*. For the *G. n. ssp. coloradensis* populations located within the Units 4, 5, 6, 7, and 8, the Service concludes that the WEAs agreed to by the landowners will provide as much or more net conservation benefits as would be provided if these properties were designated as critical habitat. These WEAs, which are described above, will provide tangible proactive conservation benefits that will reduce the likelihood of extinction for the *G. n. ssp. coloradensis* and increase its likelihood of recovery. The exclusion of these areas will not increase the risk of extinction to this species, and it may increase the likelihood this species will recover by encouraging other landowners to implement voluntary conservation actions as current participants in WEAs have done. In sum, the above analysis concludes that an exclusion of these properties from final critical habitat for the *G. n. ssp. coloradensis* will have a net beneficial impact with little risk of negative impacts. Therefore, the exclusion of these lands will not cause extinction and should improve the chances of conserving the *G. n. ssp. coloradensis*.

Economic Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific and commercial 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.

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 September 24, 2004. We accepted comments on the draft analysis until October 25, 2004.

The primary purpose of the economic analysis is to estimate the potential economic impacts associated with the designation of critical habitat for the *G. n. ssp. coloradensis*. 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.

A copy of the final economic analysis with supporting documents are 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 for downloading from the Internet at <http://mountain-prairie.fws.gov/species/plants/cobutterfly/index.htm>.

We received three comment letters on the draft economic analysis of the proposed designation. Following the close of the comment period, we considered comments, prepared responses to comments, and prepared a summary of revisions to economic issues based on final critical habitat designation (see Responses to Comments section). The economic analysis indicates that is rule will not have an annual economic effect of \$100 million or more. The economic analysis employs a lower and upper scenario approach to the economic costs. The efficiency costs for the lower bound

scenario are estimated to be \$83,890 from 2005 to 2024. The efficiency costs for the upper bound scenario are estimated to be \$104,690 from 2005 to 2024. The annualized economic effects of this designation are estimated to be \$6,424 (lower bound scenario) and \$8,263 (upper bound scenario). We have excluded 4,948 ac (2,002 ha) of privately and municipally owned lands analyzed in the draft economic analysis based on non-economic considerations so the direct economic impacts of the final designation is likely to be lower than this estimate.

Clarity of the Rule

Executive Order 12866 requires each agency to write regulations and notices that are easy to understand. We invite your comments on how to make this final rule easier to understand, including answers to questions such as the following—(1) Are the requirements in the final rule clearly stated? (2) Does the final rule contain technical jargon that interferes with the clarity? (3) Does the format of the final rule (grouping and order of the sections, use of headings, paragraphing, and so forth) aid or reduce its clarity? (4) Is the description of the notice in the **SUPPLEMENTARY INFORMATION** section of the preamble helpful in understanding the final rule? (5) What else could we do to make this final rule easier to understand?

Send a copy of any comments on how we could make this final rule easier to understand to: Office of Regulatory Affairs, Department of the Interior, Room 7229, 1849 C Street, NW., Washington, DC. 20240. You may e-mail your comments to this address, Exsec@ios.doi.gov.

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, but 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. 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 area 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), if we

determine that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless we determine, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species.

The economic analysis indicates that is rule will not have an annual economic effect of \$100 million or more.

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 the 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 the 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" 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. In areas where the species is present, 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 bull trout. Federal agencies also must consult with us if their activities may affect critical habitat. Therefore, designation of critical habitat could result in an additional economic impact on small entities due to the requirement to reinstate consultation for ongoing Federal activities.

On the basis of information in our final economic analysis, we have determined that a substantial number of small entities are not affected by the critical habitat designation for *G. n. ssp. coloradensis*. Therefore, we are certifying that the designation will not have a significant effect on a substantial number of small entities. The factual basis for certifying that this rule will not have a significant economic impact on a substantial number of small entities is as follows.

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 *G. n.*

ssp. coloradensis and its 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 non-discretionary terms and conditions. We also may 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) Regulation of activities affecting waters of the United States by the Army Corps of Engineers under section 404 of the Clean Water Act;

(2) Regulation of water flows, damming, diversion, and channelization implemented or licensed by Federal agencies;

(3) Regulation of timber harvest, grazing, mining, and recreation by the Forest Service and Bureau of Land Management;

(4) Road construction and maintenance, right-of-way designation, and regulation of agricultural activities;

(5) Hazard mitigation and post-disaster repairs funded by the Federal Emergency Management Agency; and

(6) Activities funded by the Environmental Protection Agency, U.S. Department of Energy, or any other Federal agency.

It is likely that a project proponent could modify a project or take measures to protect *G. n. ssp. coloradensis*. 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 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 Army Corps of Engineers permits, permits we may issue under section 10(a)(1)(B) of the Act, Federal Highway Administration funding for road improvements, hydropower licenses issued by the Federal Energy Regulatory Commission, and regulation of timber harvest, grazing, mining, and recreation by the Forest Service and Bureau of Land Management. A regulatory flexibility analysis is not required.

For these reasons, we are certifying that the designation of critical habitat for *G. n. ssp. coloradensis* will not have a significant economic impact on a substantial number of small entities. Therefore, a regulatory flexibility analysis is not required.

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

Under the 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 believe 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 United States-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 (E.O.) 13211 on regulations that significantly affect energy supply, distribution, and use. E.O. 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. This final rule to designate critical habitat for *G. n. ssp. coloradensis* 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 million 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 that 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, a 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 the Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this final critical habitat designation with appropriate State resource agencies in Wyoming, Colorado, and Nebraska. The designation of critical habitat in areas currently occupied by *G. n. ssp. coloradensis* imposes no additional restrictions to those currently in place and, therefore, has little incremental impact on State and local governments and their activities. We are designating areas only in Wyoming. The designation may have some benefit to these governments in that the areas essential to the conservation of the species are more clearly defined, and the primary constituent elements of the habitat necessary to the survival 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 Act. This 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 *G. n. ssp. coloradensis*.

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 Act. 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 (Ninth Cir. Ore. 1995), cert. denied 116 S. Ct. 698 (1996)). However, when the range of the species includes States within the Tenth Circuit, such as that of *G. n. ssp. coloradensis*, pursuant to the Tenth Circuit ruling in *Catron County Board of Commissioners v. U.S. Fish and Wildlife Service*, 75 F.3d 1429 (Tenth Cir. 1996), we have undertaken a NEPA analysis for critical habitat designation and have notified the public of the availability of the Draft EA for the proposed rule when it is finished. A final EA is available upon request from the Field Supervisor, Wyoming Fish and Wildlife Office (see **ADDRESSES** section).

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951), Executive

Order 13175, and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal tribes on a government-to-government basis. We have determined that there are no tribal lands essential for the conservation of *G. n. ssp. coloradensis*. Therefore, designation of critical habitat for the *G. n. ssp. coloradensis* 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, Wyoming Fish and Wildlife Office (see **ADDRESSES** section).

Author

The primary author of this package is Tyler Abbott (see **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

■ Accordingly, we proposed to 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 § 17.12(h), revise the entry for *Gaura neomexicana ssp. coloradensis* 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							
* <i>Gaura neomexicana ssp. coloradensis</i>	* Colorado butterfly plant.	* U.S.A. (WY, NE, CO).	* Onagraceae- Evening Primrose.	* T	* 704	* 17.96(a)	* NA
*	*	*	*	*	*	*	*

■ 3. In § 17.96(a), amend paragraph (a) by adding an entry for *Gaura neomexicana ssp. coloradensis* in alphabetical order

under Family Onagraceae to read as follows:

§ 17.96 Critical habitat—plants.
(a) * * *

Family Onagraceae: *Gaura neomexicana* ssp. *coloradensis* (Colorado butterfly plant)

(1) Critical habitat units are depicted for Laramie and Platte Counties in Wyoming, on the maps below.

(2) The primary constituent elements of critical habitat for *Gaura neomexicana* ssp. *coloradensis* are:

(i) Subirrigated, alluvial soils on level or low-gradient floodplains and drainage bottoms at elevations of 1,524 to 1,951 meters (5,000 to 6,400 feet).

(ii) A mesic moisture regime, intermediate in moisture between wet, streamside communities dominated by sedges, rushes, and cattails, and dry upland shortgrass prairie.

(iii) Early- to mid-succession riparian (streambank or riverbank) plant communities that are open and without dense or overgrown vegetation (including hayed fields, grazed pasture, other agricultural lands that are not plowed or disced regularly, areas that have been restored after past aggregate

extraction, areas supporting recreation trails, and urban/wildland interfaces).

(iv) Hydrological and geological conditions that serve to create and maintain stream channels, floodplains, floodplain benches, and wet meadows that support patterns of plant communities associated with *Gaura neomexicana* ssp. *coloradensis*.

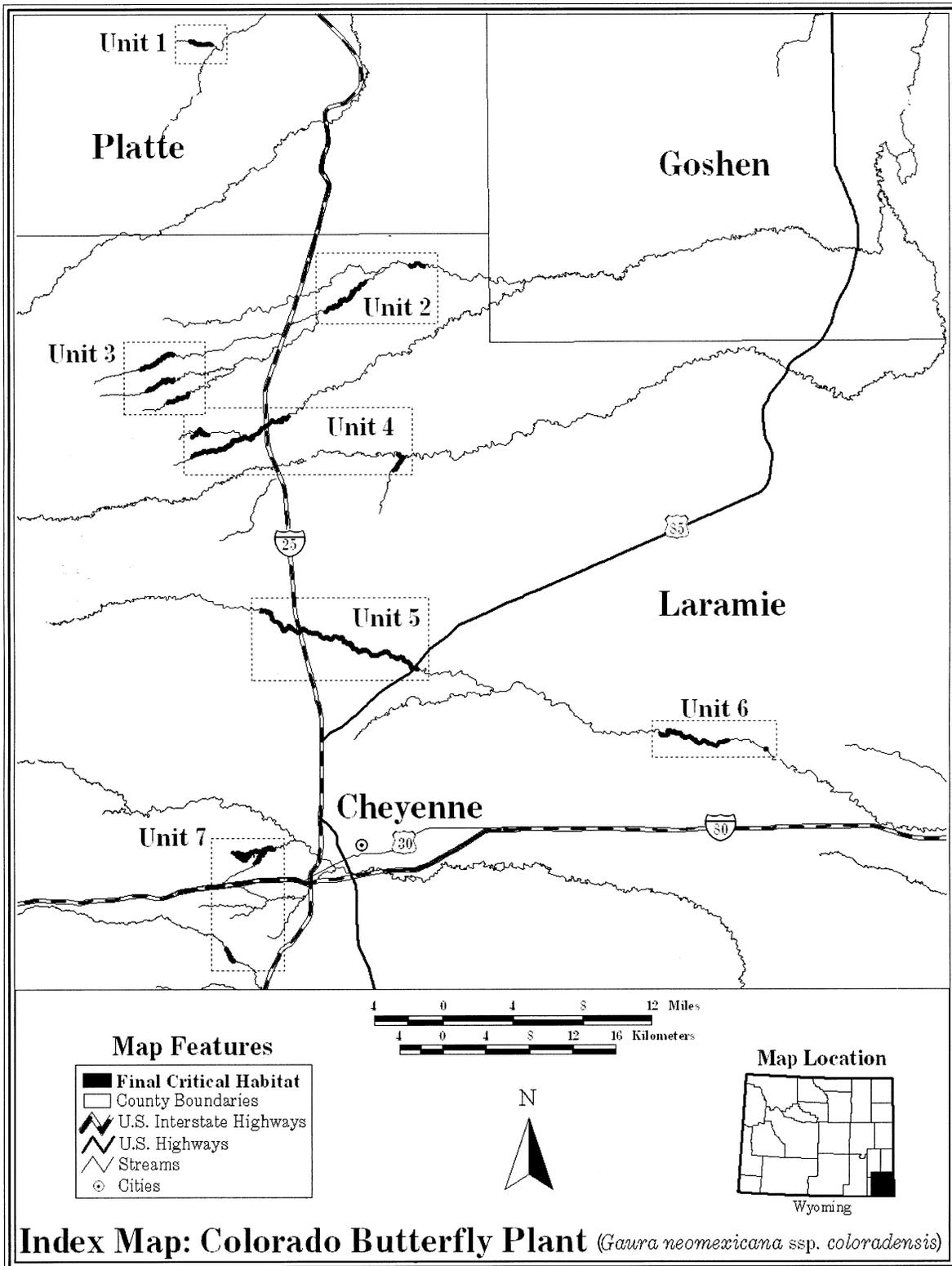
(3) Critical habitat does not include man-made structures existing on the effective date of this rule and not containing one or more of the primary constituent elements, such as buildings, aqueducts, airports, and roads, and the land on which such structures are located.

(4) Final critical habitat units are described below. Data layers defining map units were created based on U.S. Geological Survey 7.5" quadrangle maps (Borie, Bristol Ridge, Bristol Ridge NE, Burns, Cheyenne North, C S Ranch, Double L Ranch, Durham, Farthing Ranch, Hillsdale, Hirsig Ranch, Indian Hill, J H D Ranch, Lewis Ranch, Moffett Ranch, Nimmo Ranch, Pine Bluffs, P O Ranch, Round Top Lake) and

corresponding U.S. Fish and Wildlife Service National Wetlands Inventory maps. Critical habitat is based on the most current maps of surveyed subpopulations. Critical habitat also includes adjacent areas, upstream and downstream, containing suitable hydrologic regimes, soils, and vegetation communities to allow for seed dispersal between populations and maintenance of the seed bank. To ease identification of the critical habitat, the boundaries follow section lines and major geographical features where feasible. The outward extent of critical habitat is 91 meters (300 feet) from the center line of the stream edge (as defined by the ordinary high-water mark). This amount of land will support the full range of primary constituent elements essential for persistence of *G. n.* ssp. *coloradensis* populations and should adequately protect the plant and its habitats from secondary impacts of nearby disturbance.

(5) **Note:** Index Map follows:

BILLING CODE 4310-55-P



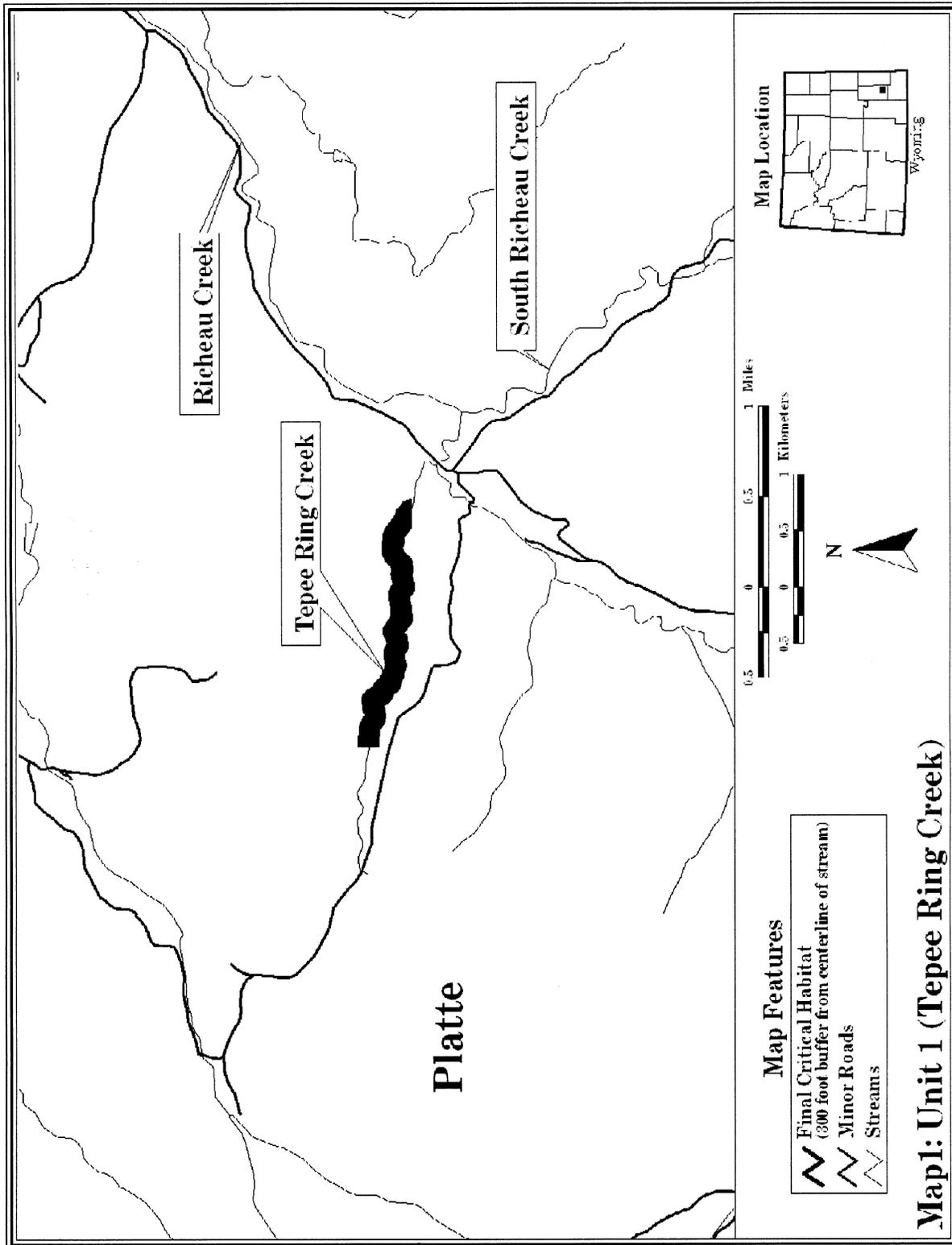
(6) Unit 1: Tepee Ring Creek, Platte County, Wyoming.

(i) This unit consists of 2.4 km (1.5 mi) of Tepee Ring Creek bounded by the

western edge of Sec. 2, T21NR68W, extending downstream including S2S2 of Sec. 2; downstream to SW4SW4 Sec.

1, bounded by the southern line of Sec. 1.

(ii) **Note:** Unit 1 (Map 1) follows:



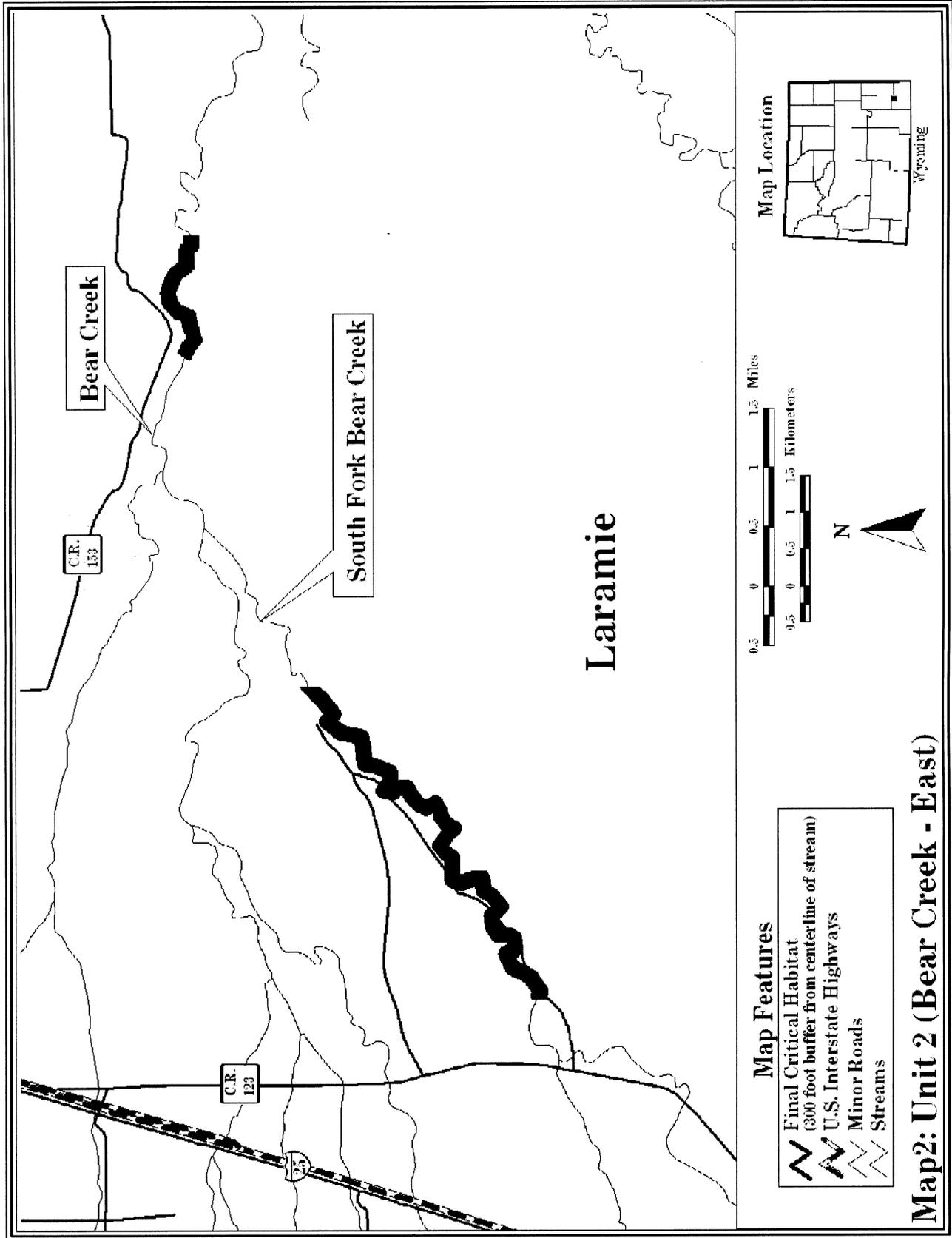
(7) Unit 2: Bear Creek East, Laramie County, Wyoming.
 (i) This unit consists of 8 km (5 mi) of the South Fork of the Bear Creek.

Includes T19N R67W, NW4 Sec. 25; NE4 Sec. 25; downstream into T19N R66W, S2 SW4 Sec. 19; N2 SE4 Sec. 19; NW4 Sec. 20; SE4 SW4 Sec. 17; SE4

Sec. 17; NE4SW4; N2 SE4 Sec. 11; N2 SW4 Sec. 12.

(ii) **Note:** Unit 2 (Map 2) follows:

Map1: Unit 1 (Tepee Ring Creek)



Map Features

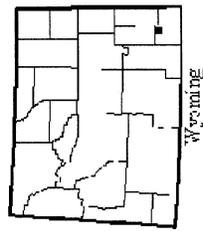
- Final Critical Habitat
(300 foot buffer from centerline of stream)
- U.S. Interstate Highways
- Minor Roads
- Streams

0.5 0 0.5 1 1.5 Miles

0.5 0 0.5 1 1.5 Kilometers



Map Location



Map2: Unit 2 (Bear Creek - East)

(8) Unit 3: Bear Creek West, Laramie County, Wyoming.

(i) Reach 1 consists of 4.7 km (2.9 mi) of an unnamed south tributary of North Bear Creek in the valley between North Bear Creek and the North Fork of the South Fork Bear Creek. Includes T18N R68W, N2 SW4 Sec. 8; downstream to NW4NW4SE4 Sec. 8; SE4NE4 Sec. 8;

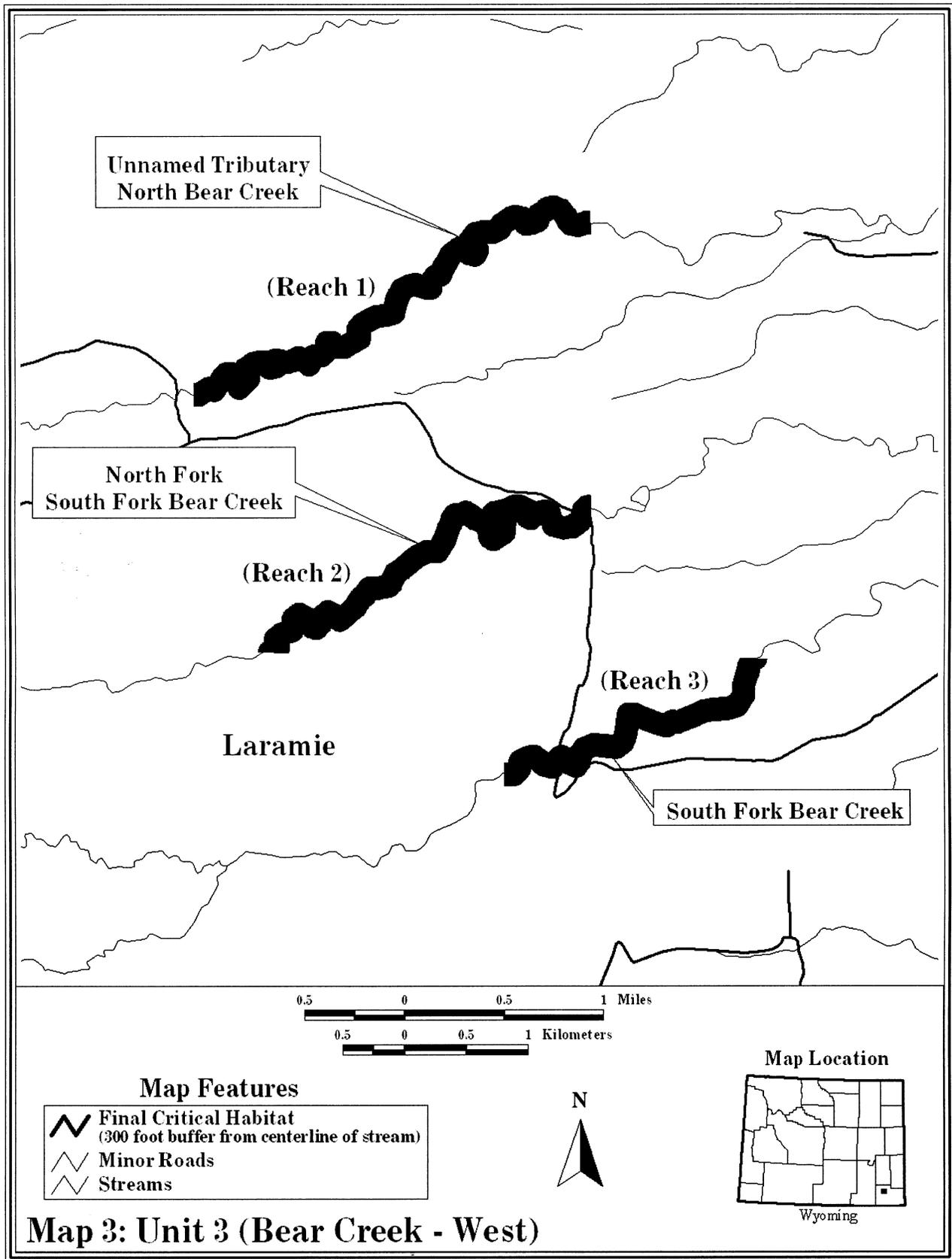
NW4NW4 Sec. 9; SE4SW4 Sec. 4; S2 SE4 Sec. 4.

(ii) Reach 2 consists of 4.2 km (2.6 mi) of the North Fork of the South Fork Bear Creek, upstream of Nimmo Reservoir No. 9. Includes T18N R68W, SE4SW4 Sec. 17; downstream to N2SW4SE4 Sec. 17; NW4SE4SE4 Sec. 17; S2NE4SE4

Sec. 17; NW4SW4 Sec. 16; SE4NW4 Sec. 16; S2 NE4 Sec. 16.

(iii) Reach 3 consists of 2.8 km (1.7 mi) of the South Fork Bear Creek. Includes T18NR68W, N2N2SE4 Sec. 21; downstream to S2NW4 Sec. 22; NW4SW4NE4 Sec. 22; SE4NW4NE4 Sec. 22; W2 NE4NE4 Sec. 22.

(iv) **Note:** Unit 3 (Map 3) follows:



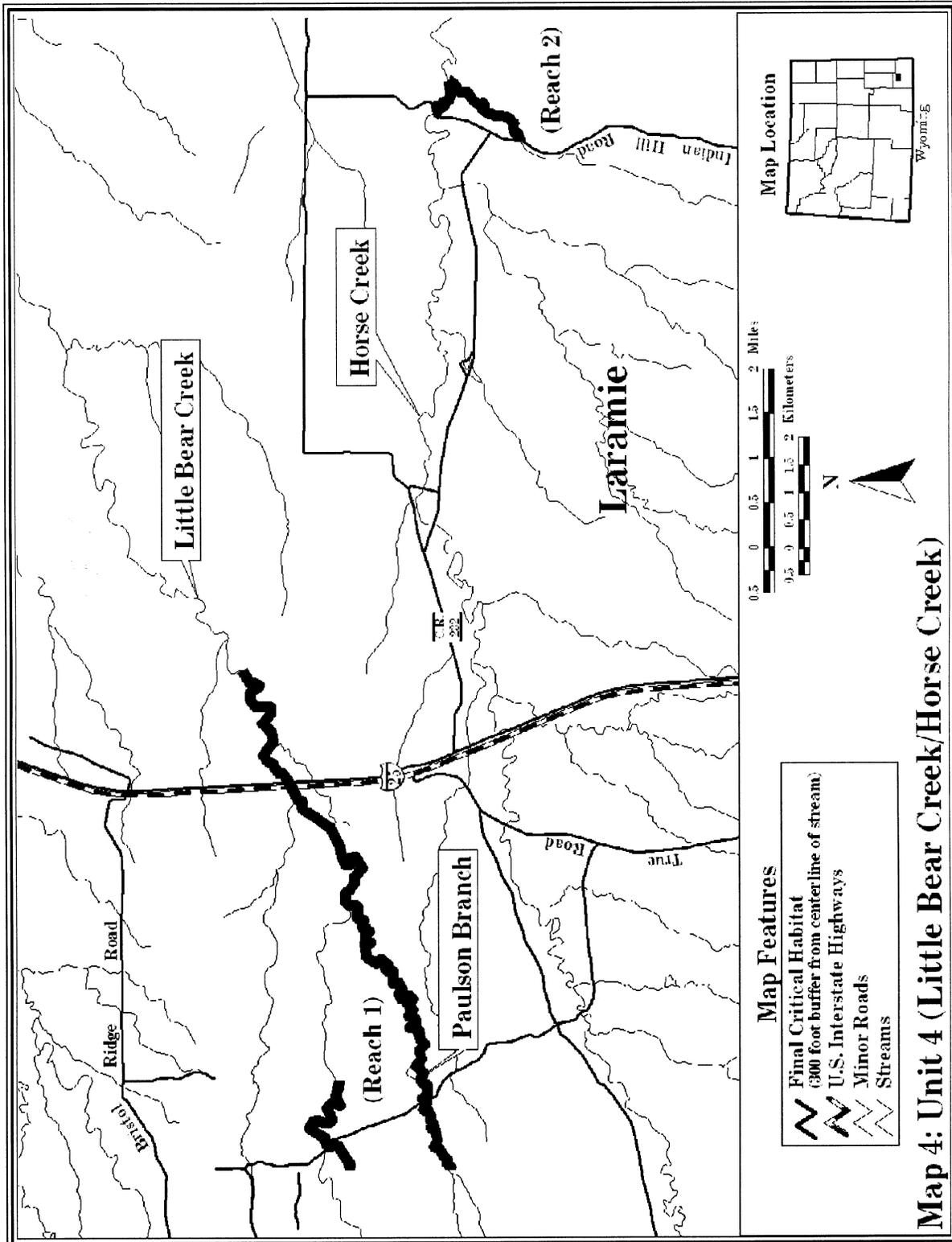
(9) Unit 4: Little Bear Creek/ Horse Creek, Laramie County, Wyoming.

(i) Reach 1 consists of 16 km (10 mi) of Little Bear Creek, which includes approximately 5 mi (8 km) of the Paulson Branch tributary. Little Bear Creek includes T18NR68W, NW4NW4SW4 Sec. 35; downstream to

N2 Sec. 35; T18NR67W, N2SW4 Sec. 32; NE4 Sec. 32; NW4NW4NW4 Sec. 33; S2 Sec. 28; NW4SW4 Sec. 27; S2 SE4NW4 Sec. 27. Paulson Branch includes T18N R68W, N2SW4 Sec. 2; downstream to S2NE4 Sec. 2; N2 Sec. 1; T18N67W, NW4NW4 Sec. 6; SE4SW4 Sec. 31; SE4 Sec. 31.

(ii) Reach 2 consists of 2.7 km (1.7 mi) of an unnamed tributary to Horse Creek on the far eastern end just east of, and parallel to, Indian Hill Road. Includes T17N R66W, W2SW4 Sec. 2; NE4 Sec. 10.

(iii) **Note:** Unit 4 (Map 4) follows:



Map 4: Unit 4 (Little Bear Creek/Horse Creek)

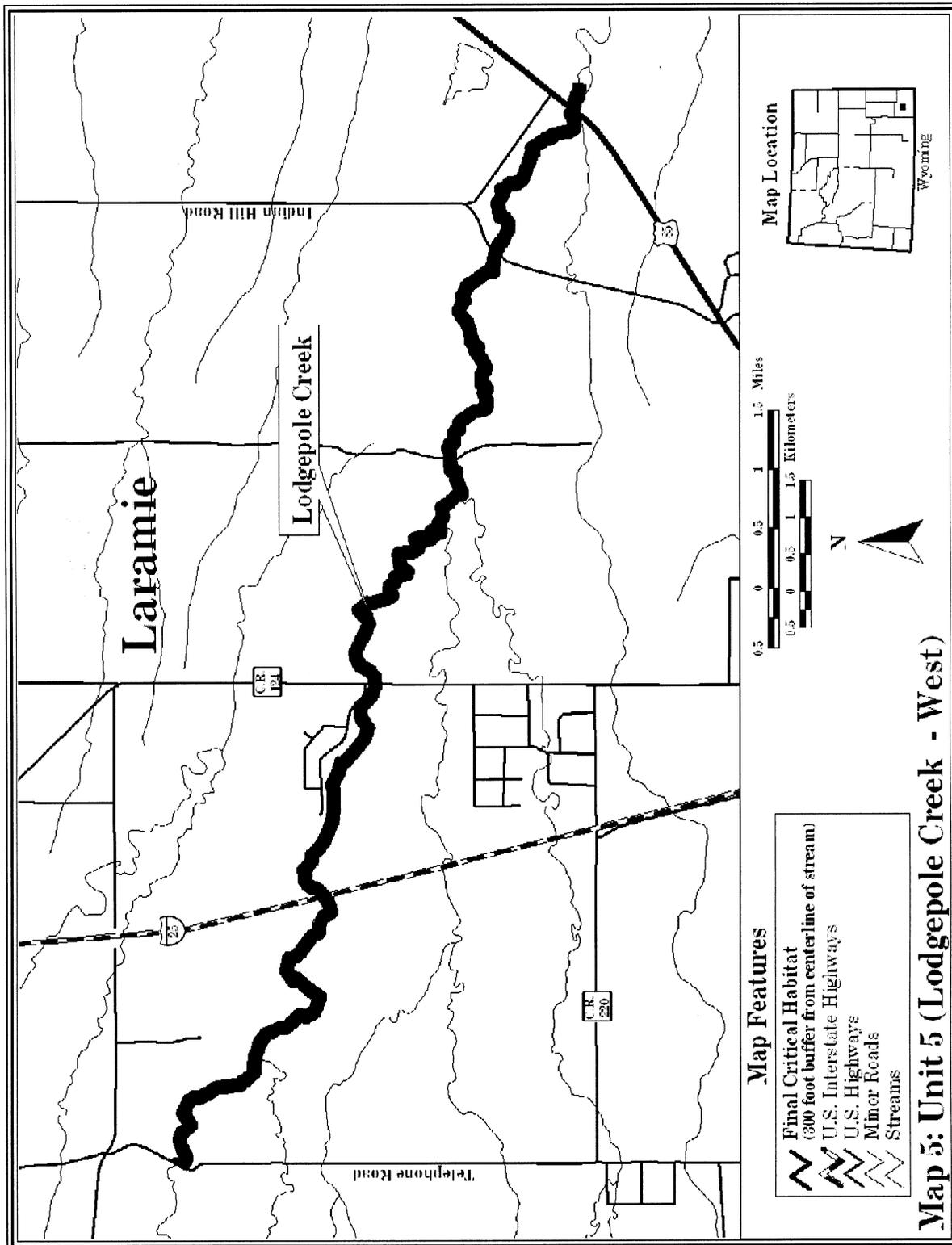
(10) Unit 5: Lodgepole Creek West, Laramie County, Wyoming.

(i) This unit consists of approximately 20.4 km (12.7 mi) west along Lodgepole Creek from State highway 85. Includes T16N R67W, N2 SW4 Sec. 21; W2 SE4 Sec. 21; N2 NE4 Sec. 28; W2 NW4 Sec.

27; N2 S2 Sec. 27; SW4NE4 Sec. 27; S2 Sec. 26; S2 SW4 Sec. 25; N2 NE4 Sec. 36; T16N R66W, N2 Sec. 31; downstream to SW4NW4 Sec. 32; SW4 Sec. 32; S2 SE4 Sec. 32; SW4SW4 Sec. 33; SE4SE4 Sec. 33; S2 SW4 Sec. 34; T15N R66W, N2N2 Sec. 4; downstream

to NE4NW4 Sec. 3; N2 NE4 Sec. 3; NW4 Sec. 2; SE4 Sec. 2.

(ii) **Note:** Unit 5 (Map 5) follows:



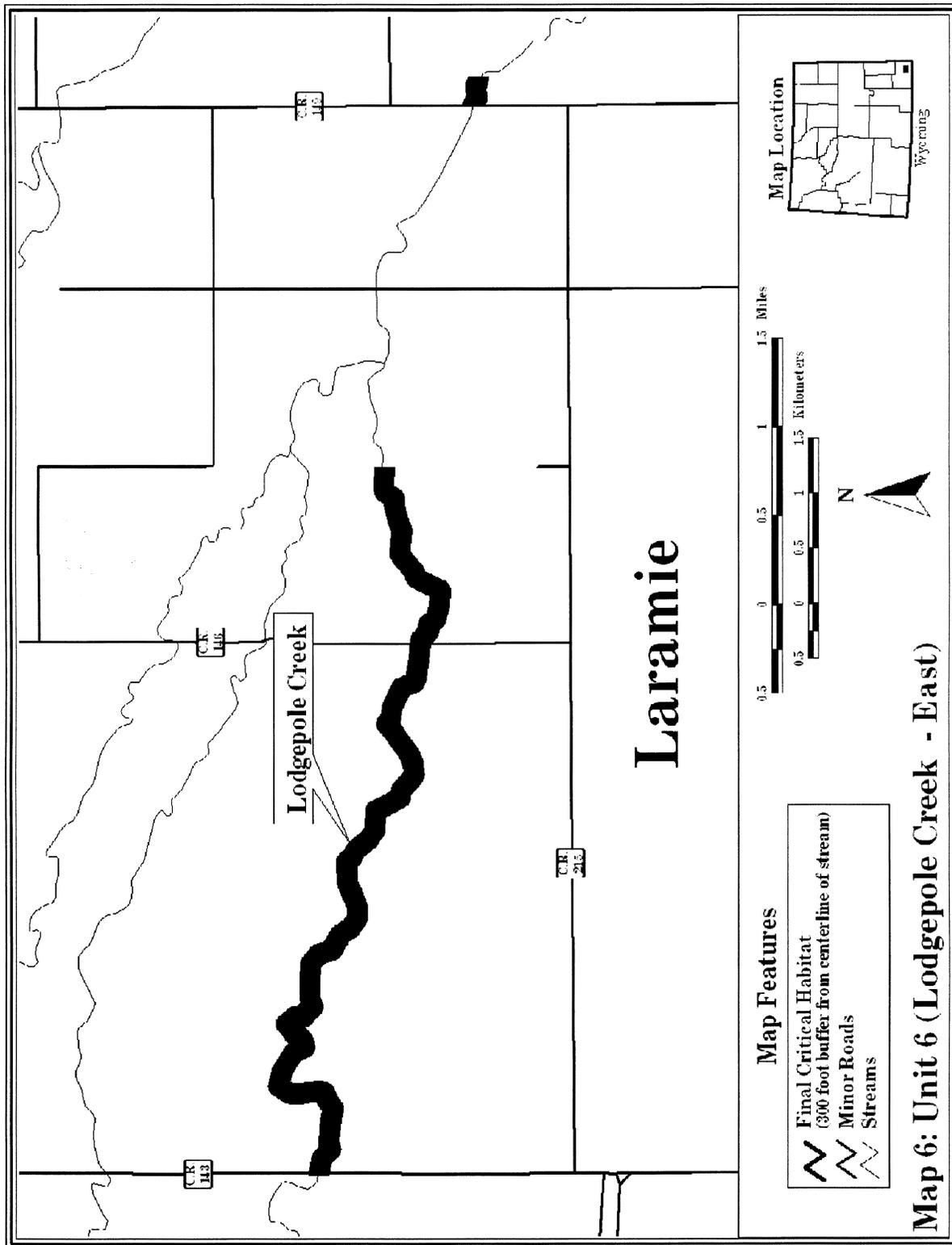
(11) Unit 6: Lodgepole Creek East, Laramie County, Wyoming.

(i) Consists of 8.4 km (5.2 mi) of Lodgepole Creek from approximately 3.2 km (2 mi) northeast of the town of Hillsdale on the west end of the reach, downstream to approximately 0.4 km

(0.25 mi) east of State highway 213, approximately 3.2 km (2 mi) north of the town of Burns. Includes T15NR64W, N2SW4 Sec. 29; SE4SE4NW4 Sec. 29; S2NE4 Sec. 29; S2 Sec. 28; S2S2 Sec. 27; N2N2 Sec. 34; N2N2 Sec. 35; S2 SE4SE4

Sec. 26; T15NR62W, N2NW4 SW4 Sec. 32.

(ii) **Note:** Unit 6 (Map 6) follows:



(12) Unit 7: Borie, Laramie County, Wyoming.

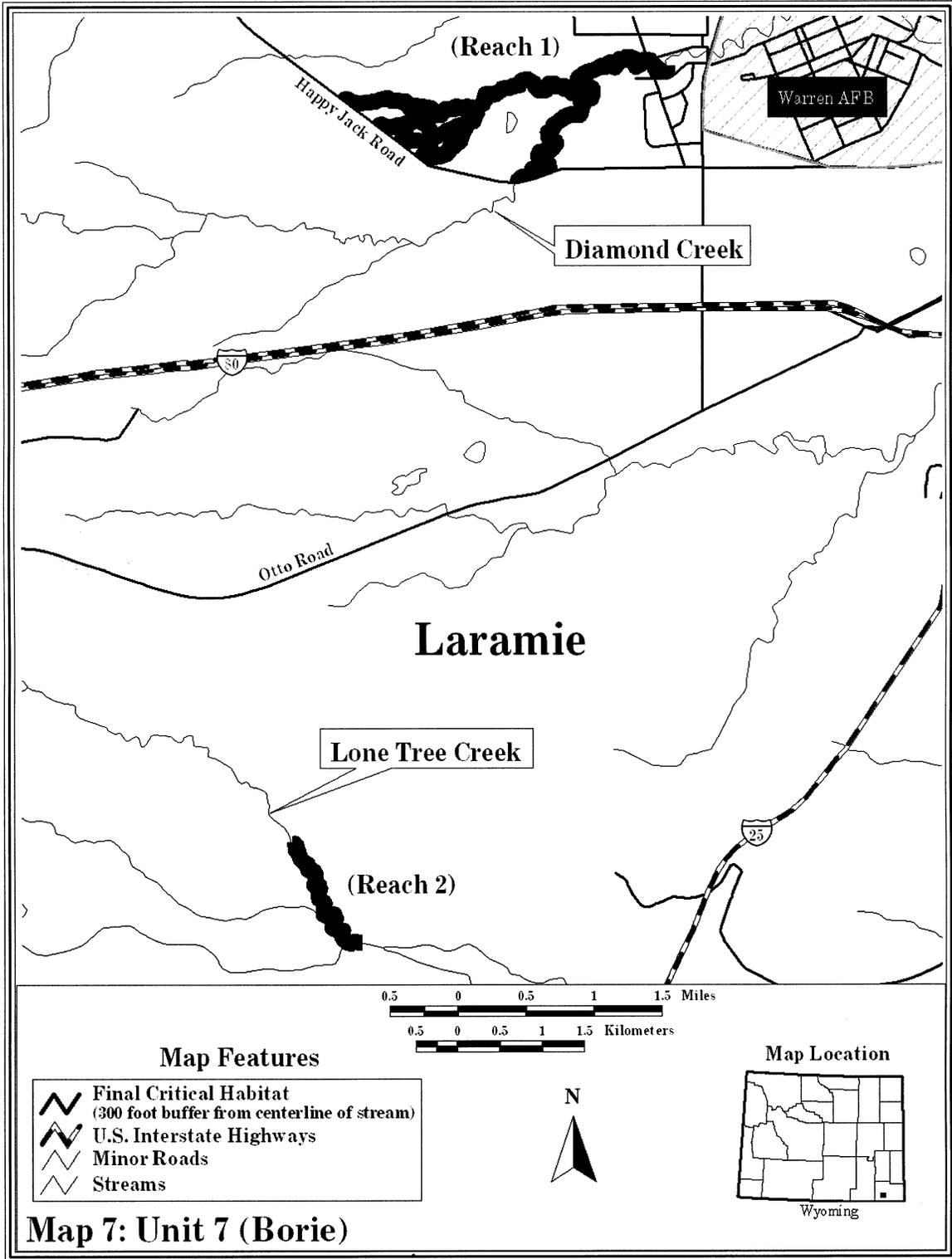
(i) Reach 1 consists of 10.5 km (6.5 mi) along Diamond Creek west of F.E. Warren Air Force Base and other smaller tributaries merging from the north. Includes T14NR67W, N2 Sec. 33;

upstream to NW4SW4 Sec. 33; S2 NE4 Sec. 32; E2 SE4 Sec. 32; SW4 Sec. 32; SE4 Sec. 31; T13N R67W, N2N2NE4 Sec. 5.

(ii) Reach 2 consists of 1.7 km (1.1 mi) of Lone Tree Creek. Includes T13N

R67W, NW4 Sec. 31; downstream to NE4SW4 Sec. 31.

(iii) **Note:** Unit 7 (Map 7) follows:



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Dated: December 29, 2004.
Craig Manson,
Assistant Secretary for Fish and Wildlife and Parks.
[FR Doc. 05-239 Filed 1-10-05; 8:45 am]
BILLING CODE 4310-55-C