

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

RIN 1018-AU49

**Endangered and Threatened Wildlife and Plants; Proposed Threatened Status for *Penstemon grahamii* (Graham's beardtongue) With Critical Habitat****AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Proposed rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), propose to determine threatened status for *Penstemon grahamii* (Graham's beardtongue), a plant species from Colorado and Utah, under the authority of the Endangered Species Act of 1973, as amended (Act). *P. grahamii* exists in a series of small populations that extend in a narrow band from Raven Ridge west of the town of Rangely in Rio Blanco County, Colorado, westward to the vicinity of Sand Wash near the point where Carbon, Duchesne, and Uintah Counties meet in Utah's Uinta Basin. Threats to the species include degradation of the species' habitat by oil and gas exploration, drilling and field development, and tar sand and oil shale mining. Off-road vehicle (ORV) use, overutilization by domestic and wild grazers, and overutilization for horticultural use may also affect some populations. These threats, in combination with small population sizes and limited distribution, result in species vulnerability to natural and human-caused stochastic events. This proposal, if made final, would implement Federal protection provided by the Act. In addition, we propose to designate 3,503.68 acres (2,102 hectares) as critical habitat for *P. grahamii* in five units in Rio Blanco County, Colorado, and Duchesne and Uintah Counties, Utah.

**DATES:** Comments from all interested parties must be received by March 20, 2006. Public hearing requests must be received by March 6, 2006.

**ADDRESSES:** If you wish to comment, you may submit your comments and materials concerning this proposal by any one of several methods:

1. You may submit written comments and information to Henry Maddux, Field Supervisor, U.S. Fish and Wildlife Service, Utah Field Office, 2369 West Orton Circle, West Valley, Utah 84119.
2. You may hand-deliver written comments to our Office, at the above address.

3. You may send comments by e-mail to [fw6\\_penstemongrahamii@fws.gov](mailto:fw6_penstemongrahamii@fws.gov). Please see the Public Comments Solicited section below for file format and other information about electronic filing.

4. You may fax your comments to the Utah Field Office at 801-975-3331.

Comments and materials received, as well as supporting documentation used in the preparation of this proposed rule, will be available for public inspection, by appointment, during normal business hours at the Utah Field Office, 2369 West Orton Circle, West Valley, Utah 84119 (801-975-3330).

**FOR FURTHER INFORMATION CONTACT:** John L. England at the above address (telephone 801-975-3330, extension 138; facsimile 801-975-3331).

**SUPPLEMENTARY INFORMATION:****Public Comments Solicited**

The Service expects any final rule resulting from this proposal to be as accurate and as effective as possible. Therefore, comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule are hereby solicited. Comments particularly are sought concerning:

**Listing Rule**

We seek specific information on any available preliminary results from the recent lease nominations for research, development, and demonstration of oil shale recovery technologies on Bureau of Land Management (BLM) lands; success of ongoing oil shale or tar sands development projects, particularly in the Green River formation; available economic and technological analyses; and specific information detailing definitive effects of these operations to environmental resources, as primarily related to losses of plant individuals, loss or fragmentation of plant habitat, and loss or declines in plant pollinators. Despite recent policy direction (*e.g.*, Energy Policy Act 2005), the long-term technological and economic feasibility of oil shale and tar sands development are uncertain (Bartis 2005). Our final rule will more closely evaluate the technologies and economic certainty of oil shale and tar sand development within the Green River formation, and its potential to threaten *P. grahamii*. Similarly, although the Energy Policy Act of 2005 seems to set the stage for increased oil and gas drilling activities within *P. grahamii* habitat, we do not have information specific to ongoing or proposed actions in these areas, and we request any available information.

**Critical Habitat**

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to this species;

(2) Additional information concerning the range, distribution, and population size of this species, including the locations of any additional populations of this species;

(3) Current or planned activities in the subject area and their possible impacts on this species;

(4) Reasons why any habitat should or should not be determined to be critical habitat for this species pursuant to section 4 of the Act; and

(5) Any foreseeable economic or other impacts resulting from the proposed designation of critical habitat.

Our practice is to make comments, including names and home addresses of respondents, available for public review during regular business hours.

Individual respondents may request that we withhold their home address from the rulemaking record, which we will honor to the extent allowable by law. In some circumstances, we would withhold from the rulemaking record a respondent's identity, as allowable by law. If you wish us to withhold your name or address, you must state this prominently at the beginning of your comment. However, we will not consider anonymous comments. We will make all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety. Comments and materials received will be available for public inspection, by appointment, during normal business hours (see **ADDRESSES** section).

**Listing****Background**

Section 12 of the Act directed the Secretary of the Smithsonian Institution to prepare a report on those plants considered to be endangered, threatened, or extinct. On July 1, 1975, the Service published a notice in the **Federal Register** (40 FR 27823) accepting that Smithsonian report as a petition to list those taxa named therein under section 4(c)(2) (now 4(b)(3)) of the Act, and announced our intention to review the status of those plants. *Penstemon grahamii* was included in that report.

On June 16, 1976, we published a proposed rule in the **Federal Register** (41 FR 24523) to designate approximately 1,700 vascular plant species, including *Penstemon grahamii*, as endangered pursuant to section 4 of

the Act. The 1978 amendments to the Act required that all proposals over 2 years old be withdrawn. On December 10, 1979, we published a notice of withdrawal (44 FR 70796) of that portion of the June 16, 1976 proposal that had not been made final, which included *P. grahamii*.

On December 15, 1980, we published a revised notice of review for native plants in the **Federal Register** (45 FR 82480) designating *Penstemon grahamii* a category 2 candidate species. Category 2 candidates were at that time defined as taxa for which information in the possession of the Service indicated the probable appropriateness of listing as either endangered or threatened, but for which sufficient information is not presently available to biologically support a proposed rule. During the late 1970s and early 1980s strong interest in oil shale development with its potential for extensive disruption of much of the species' known habitat accentuated our concern for the conservation of *P. grahamii*. However, the recent discovery of a Colorado population and the lack of surveys over the species' entire range caused us to delay action until that new information was developed.

On November 28, 1983, we published a revised notice of review in the **Federal Register** (48 FR 53640) amending our 1980 notice of review. The 1983 amendment changed the candidate species status of *P. grahamii* to category 1. Category 1 candidates are defined as those taxa for which the Service has on file information on the biological vulnerability and threats to support the preparation of listing proposals. Recently completed status surveys demonstrating very small populations (Neese and Smith 1982; Shultz and Mutz 1979) coupled with ongoing concern for the conservation of the species' habitat from potential energy development resulted in this change in *P. grahamii* candidate status. We maintained *P. grahamii* as a category 1 candidate species in subsequent updated notices of review.

In the February 28, 1996, notice of review (61 FR 7596), we discontinued the designation of category 1, 2, and 3 species. Most category 2 species were removed from the notice of review and most category 1 species were maintained as uncategorized candidate species. *Penstemon grahamii* was included as a candidate species. The Service made subsequent determinations of candidate species status for *P. grahamii* in **Federal Register** notices of review.

*Penstemon grahamii* was petitioned three times for listing as endangered or threatened under the provisions of the

Act. The first petition was the initial Smithsonian list of 1975 (see above). The second Petition was the Fund for Animal's petition of 1990. This petition included 401 species the Service had previously assigned Category 1 status in its previous notices of review. On October 8, 2002, we received a petition specifically for *P. grahamii* from five separate parties, namely—the Center for Native Ecosystems, the Southern Utah Wilderness Alliance, the Utah Native Plant Society, the Colorado Native Plant Society, and the American Lands Alliance. This “second” petition reiterated biological information and information on increased levels of threat, for the most part already in our files.

We are under a court settlement to submit to the Office of the Federal Register, by January 9, 2006, a proposed rule to list *Penstemon grahamii*.

#### Species Information

Edward Graham collected a distinctive *Penstemon* from a site west of the Green River and south of Sand Wash, in southern Uintah County, Utah, on May 27, 1933, and from a site north of Sand Wash on the following day (Graham, 1937). David Keck described the species, *Penstemon grahamii*, from Graham's collections in 1937 (Keck in Graham, 1937). The genus *Penstemon* consists of dicotyledonous plants traditionally placed in the Figwort family (Scrophulariaceae). The genus *Penstemon* includes about 250 species and is almost exclusively North American in its distribution. The center of distribution of the genus is in the interior west of the United States, with Utah having over 70 species and Colorado over 60 (Welsh et al. 2003; Weber and Wittmann 2000; Cronquist et al. 1984). Thirty species occur in the Uinta Basin of northeastern Utah and adjacent Colorado, the local geological and floristic province of *P. grahamii* (Goodrich and Neese 1986).

*Penstemon grahamii* is an herbaceous perennial plant within the sub-genus *Cristati* (N. Holmgren in Cronquist et al. 1984). The following description of *P. grahamii* is adapted from D. Keck (in Graham 1937), N. Holmgren (in Cronquist et al. 1984), and E. Neese (in Welsh et al. 2003). Each plant has one to three stems arising from a taproot. These stems are 7–18 centimeters (cm) (2.8–7.0 inches (in)) tall. Leaves are borne in pairs opposite each other on the stem and are of two different forms (basal leaves and cauline leaves).

*Penstemon grahamii* has an inflorescence (cluster of flowers) usually of 3 to 20 flowers, although occasionally just one or two flowers are present. The

species' corolla (inner whorl of flower parts, the petals collectively) is bilaterally symmetrical with its petals fused into a floral tube. The corolla tube is 30–38 mm (1.2–1.5 in.) long and abruptly ventricose (enlarged on one side) towards the distal part of the tube. The corolla is strongly bilabiate (two lipped), the upper lip has two lobes and the lower lip has three lobes. The color of the corolla varies from light to dark lavender, or pinkish, with dark violet lines in the throat of the corolla tube. The species has four fertile stamens and one prominent infertile staminode (the infertile staminode is the classic floral characteristic of the *Penstemon* genus). The fertile stamens lie along the roof of the corolla. The linear staminode is densely bearded with short stiff golden orange pubescence on all surfaces along its entire length. The seed capsule is an inverted cordate (heart) shaped structure about 8–10 mm (0.03–0.04 in.) long. The species has 5–50 seeds per capsule.

We have delineated all known locations with extant populations of *P. grahamii* into 109 occurrences. We grouped these occurrences into five units separated by unoccupied gaps in the species range. Available population data information is summarized for the broader units rather than each of the smaller occurrences (Shultz and Mutz 1979, Neese and Smith, 1982, Borland 1987, Franklin 1993, 1995, Colorado Natural Heritage Program 2005, Utah Natural Heritage Program 2005). In addition the consolidating occurrences at this scale provides for effective identification and naming of these sites to land owners and managers.

The westernmost *P. grahamii* population habitat unit, named the Sand Wash Unit (Unit A) occurs in the vicinity of Sand Wash in southwestern Uintah and adjacent Duchesne Counties, Utah. This unit consists of 10 separate occurrences with a population estimated at 135 individuals (Shultz and Mutz 1979, Franklin 1993, Utah Natural Heritage Program 2005). This population unit has relatively small numbers (approximately 2 percent of the species total) compared to those population units in the center of the species range. This unit is the most isolated of the species population units. This portion of the species population has minor morphological differences from the remainder of its population (Shultz and Mutz 1979) and may, due to geographic isolation, be genetically divergent from the remainder of the species population.

A second *P. grahamii* population habitat unit, named the Seep Ridge Unit (Unit B), occurs approximately 17 miles

(mi) (27 kilometers (km)) east of the Sand Wash population unit in the Willow and Bitter Creek drainages in the vicinity of Sunday School Canyon near the Seep Ridge road in south central Uintah County, Utah. This population habitat unit consists of 53 separate occurrences with an estimated population of 3,200 individuals (Shultz and Mutz 1979, Utah Natural Heritage Program 2005). This population habitat unit is the species largest with approximately 52 percent of the species total population.

A third *P. grahamii* population habitat unit, named the Evacuation Creek Unit (Unit C), occurs approximately 10 mi (16 km) east of the Seep Ridge unit in the Asphalt Wash and Evacuation Creek drainages near the abandoned Gilsonite mining towns of Dragon and Rainbow. This population habitat unit is in southeastern Uintah County, Utah, and adjacent Rio Blanco County, Colorado, and consists of 31 separate occurrences with an estimated population of 2,550 individuals (Neese and Smith, 1982, Franklin 1995, Utah Natural Heritage Program 2005). This population unit is the species second largest with approximately 41 percent of the species total population.

A fourth *P. grahamii* population habitat unit, named the White River Unit (Unit D), occurs approximately 5 mi (8 km) north of the Evacuation Creek unit in Hells Hole and Weaver Canyons immediately south of the White River. This population habitat unit is in eastern Uintah County, Utah, and consists of 9 separate occurrences with an estimated population of 115 individuals (Neese and Smith, 1982, Franklin 1995, Utah Natural Heritage Program 2005). This population habitat unit is the species smallest with approximately 2 percent of the species total. This population unit is important as a link between the species to largest population units to the south and southwest and the species Colorado population to the northeast.

A fifth population habitat unit, named the Raven Ridge Unit (Unit E), occurs approximately 7 mi (11 km) northwest of the White River unit along the west flank of Raven Ridge and north of the White River between Raven Ridge and the Utah border in extreme western Rio Blanco County, Colorado. This population habitat unit consists of 6 separate occurrences with an estimated population of 200 individuals (Borland 1987, Colorado Natural Heritage Program 2005). This population habitat unit harbors approximately 3 percent of the species total population. This unit includes virtually the species entire population in Colorado (a portion of a

small population occurs at the eastern margin of the Evacuation Creek population unit at the Colorado-Utah border). As in the case of the Sand Wash unit, the Raven Ridge unit is at the extreme end of the species range. As such this population is important for its representation of a portion of the full spectrum of the species genetic diversity.

The 109 occurrences and five units of *Penstemon grahamii* collectively form the species' known range, which is distributed in a curved band about 10 km (6 mi) wide and about 128 km (80 mi) long. These units extend from the Sand Wash and adjacent Nine Mile Creek drainages near the point where Carbon, Duchesne, and Uintah Counties, Utah, meet; then easterly across southern Uintah County to near the Colorado border; then northerly to a point near the White River where the population band moves into Colorado to Raven Ridge, the eastern terminus of the species range (Shultz and Mutz 1979, Neese and Smith 1982, Borland 1987, Franklin 1993, 1995, Colorado Natural Heritage Program 2005, Utah Natural Heritage Program 2005). The total documented population of *Penstemon grahamii* is estimated at approximately 6,200 individuals (Shultz and Mutz 1979, Neese and Smith, 1982, Borland 1987, Franklin 1993 and 1995, Colorado Natural Heritage Program 2005, Utah Natural Heritage Program 2005). Approximately 60 percent of the species population is on BLM managed land with the remainder on non-Federal lands with state and private ownership.

The species' habitat is a discontinuous series of exposed raw shale knolls and slopes derived from the Parachute Creek and Evacuation Creek members of the geologic Green River Formation. Most populations are associated with the surface exposure of the petroleum bearing oil shale Mahogany ledge (Cashion 1967, Shultz and Mutz 1979, Neese and Smith, 1982, Franklin 1993, 1995). The trace of the Mahogany bed correlates very closely with the trace of *Penstemon grahamii* sites from the vicinity of Sand Wash near the Green River to Raven Ridge near the White River (Cashion 1967 (see map page 31), Shultz and Mutz 1979, Neese and Smith 1982 (see map overlay Vol. 5)).

*Penstemon grahamii* is associated with a suite of species similarly adapted to xeric growing conditions on highly basic calcareous shale soils. The vascular plant species most commonly associated with *P. grahamii* include—*Amelanchier utahensis* (Utah serviceberry), *Artemisia pygmaea* (pygmy sage), *Cercocarpus montanus*,

(mountain mahogany), *Chamaechaenactis scoposa* (Eastwood's chaenactis), *Elymus salinus* (Salina wild-rye), *Ephedra torreyana* (Mormon tea), *Eriogonum corymbosum* (Fremont's wild-buckwheat), *Glossopetalon spinescens* (Utah greasewood), *Parthenium ligulatum* (low feverfew), *Tetradymia nuttallii* (Nuttall's horsebush), and *Yucca harrimaniae* (Harriman's yucca). *P. grahamii* sites at higher elevation are occasionally within sparse piñon-juniper woodland dominated by *Juniperus osteosperma* (Utah juniper) and *Pinus edulis* (Colorado piñon). *P. grahamii* sites at lower elevations are occasionally within a sparse desert shrubland dominated by *Atriplex confertifolia* (shadscale). However, in both cases *P. grahamii* habitat is characterized by the sparsely vegetated raw shale surface indicative of the species habitat throughout its range. The following species are in part co-occurring with *P. grahamii* and are similarly endemic and totally restricted to the Green River Formation: *Astragalus lutosus* (Dragon milk-vetch), *Aquilegia barnebyi* (Barneby's columbine), *Cirsium barnebyi* (Barneby's thistle), *Cryptantha barnebyi* (Barneby's catseye), *C. grahamii* (Graham's catseye), *C. rollinsii* (Rollins's Catseye), *Eriogonum Ephedroides* (ephedra wild-buckwheat), and *Penstemon sacariosus* var. *albifluvis* (White River penstemon). *Penstemon scariosus* var. *albifluvis* is currently a Federal candidate species and most of the remainder of those in the above list were category 2 candidate species prior to 1996 (see discussion in following "Previous Federal Action"). The plant community associated with *P. grahamii* forms a distinctive assemblage of plant species dominated by dwarf shrubs and mound-forming perennial herbaceous plants with relatively low plant cover. This plant community forms small enclosures within the broader plant communities that characterize the southeastern Uinta Basin (Shultz and Mutz 1979; Neese and Smith 1982; BLM 1987).

Pollinators of *Penstemon grahamii* include the bees *Anthophora lesquerellae*, *Osmia sanrafaelae*, the sweat bees *Lasioglossum sisymbrii* and *Dialictus* sp., and the masarid wasp *Pseudomasaris vespoides* (Lewinsohn et al. 2005). In addition, a bumblebee of the genus *Bombus* (*Bombus huntii*) (V. Tepedino, pers. comm. 2005) visits the species (L. England, U.S. Fish and Wildlife Service, pers. obs. 2003). The most consistent pollinator of these species is likely to be *Pseudomasaris vespoides*. This unusual wasp (it is a

member of the only “vegetarian” wasp family known to science) is an extreme specialist of *Penstemon* flowers. It collects and feeds its offspring only *Penstemon* pollen, though it may visit other plant genera for nectar (Lewinsohn et al. 2005).

The Natural Heritage Programs for the States of Colorado and Utah have assigned *P. grahamii* a global imperilment ranking of G2 and state imperilment rankings of S2. G2 and S2 rankings mean the species is imperiled at Global and State levels respectively. The International Union for the Conservation of Nature (IUCN) has given the species a ranking of “Vulnerable”.

### Summary of Factors Affecting the Species

Section 4 of the Act and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to Federal lists. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Penstemon grahamii* Keck (Graham’s beardtongue) are as follows:

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

##### Energy Resources

*P. grahamii* has been listed as a candidate species since 1980, in part due to the potential threat of increased energy development (U.S. Fish and Wildlife Service 2004). The habitat of *P. grahamii* is a series of knolls and slopes of raw oil shale derived from Green River geologic formation. Oil shale resources associated with the Green River formation underlie approximately 16,000 square miles (41,000 sq. km) and represent the largest known concentration of oil shale in the world (Dyner 2003; T. Lonnie, Senate Energy and Natural Resources Committee Oversight Hearing on Oil Shale Development Efforts, April 12, 2005). *P. grahamii* only grows directly on surface exposures of the richest oil shale bearing strata in the Mahogany ledge and closely associated strata, making the species highly vulnerable to extirpation consequent to exploitation of oil shale strata (Cashion 1967 [see map page 31]; Bureau of Mines 1988; U.S. Fish and Wildlife Service 2005; Shultz and Mutz 1979; Neese and Smith 1982 [see map overlay Vol. 5]).

Impacts to the species from energy development have been largely avoided to date because energy development

within the species habitat has been minimal. For example, under existing development scenarios only 5 of 109 known occurrences (4.6 percent) have oil and gas wells located within them (U.S. Fish and Wildlife Service 2005). Where development has occurred, BLM has provided conservation measures and moved well or pipeline locations to minimize effects, largely due to attention provided the species because of its candidate status and BLM sensitive species status (R. Specht, BLM, 2005, per. comm.). Similarly, oil shale and tar sands development, as projected decades earlier, have not yet reached their potential due largely to limitations of past technology and unfavorable economics. The first interest in oil shale extraction occurred in the latter years of and immediately following World War I, however limited accessibility and low economic viability resulted in declining interest. More recently in the 1970–1980s, BLM made oil shale resources on public lands available through the Oil Shale Prototype Program, which was designed to allow companies to develop and refine the technology for extracting oil from oil shale. Since then, during the mid-1980s and 1990s, interest in oil shale development continued to lag because of declining petroleum prices (World Energy Council 2005; U.S. Fish and Wildlife Service 2005; T. Lonnie, Senate Energy and Natural Resources Committee Oversight Hearing on Oil Shale Development Efforts, April 12, 2005). However, recent Federal policy direction, technological advances, world oil demand, and economics have increased the desirability to invest in oil shale and other energy development in Utah and Colorado:

##### Federal Policy Direction

The Energy Policy Act of 2005 establishes that oil shale, tar sands, and other strategic unconventional fuels should be developed to reduce the nation’s dependence on imported oil. Section 309(m)(1)(B) identifies the Green River Region, including the entire range of *P. grahamii* (U.S. Fish and Wildlife Service 2005), as a priority for oil shale and tar sand development.

Provisions of the Energy Policy Act of 2005 may provide economic incentives for oil shale development. For example, previous Mineral Leasing Act of 1920 restrictions limited oil shale lease sizes to 5,120 acres (ac) ( 2,072 hectares (ha)), and restricted leasing opportunities to just one lease tract per individual or corporation. Lease size restrictions effectively limited development because of a lack of available acreage to accommodate necessary infrastructure and facilities. The Energy Policy Act of

2005 now allows an individual or corporation to acquire multiple lease tracts up to 50,000 acres in any one state, removing the restrictions of the Mineral Leasing Act of 1920 (Bartis 2005).

Energy Policy Act of 2005 provisions require the Interior Department to complete a programmatic Environmental Impact Statement by February 2007 for a commercial leasing program for oil shale and tar sands resources on public lands. On December 13, 2005, the BLM published a notice of intent to prepare the document (70 FR 73791).

The Energy Bill of 2005 enables leasing of oil and gas and tar sands separately, even when the two are found in the same area. Previously, the law required a combined tar sands/oil and gas lease, effectively delaying leasing and extraction of oil and gas in tar sand areas.

BLM has established an Oil Shale Task Force to address access to unconventional resources such as oil shale on public lands; impediments to oil shale development on public lands; industry interest in research and development and commercial development opportunities on the public lands; and Secretarial options to capitalize on the opportunities.

On June 9, 2005, BLM announced in the **Federal Register** its intent to initiate a program to facilitate research, development, and demonstration (RD&D) of oil shale recovery technologies on Federal lands (70 FR 33753). BLM recognizes this effort as a first step toward successful development of oil shale reserves. The Bureau of Land Management received 19 nominations for oil shale research and development projects; eight nominations were received for projects in the Uinta Basin of Utah (BLM 2005, U.S. Fish and Wildlife Service 2005). Response to the RD&D request demonstrates significant interest in oil shale development (Bureau Land Management 2005).

##### Technological Advances

*Oil shale*: “Oil shale” is hard calcareous shale, called marl, impregnated with an organic compound called kerogen, a precursor to synthetic petroleum. Organic kerogen within the oil shale rock can be heated and vaporized at high temperatures to form synthetic petroleum. Extraction occurs in a process called retorting which requires heating of the rock to about 900 degrees Fahrenheit (480 degrees Celsius) through in-situ or surface retorting methods. Surface retorting involves mining ore on the surface or

underground, crushing it, and placing it in a retort; shale oil is removed and upgraded by the addition of hydrogen. There are currently no active commercial surface retorts in the United States. Oil-Tech currently operates a small, cost-effective commercial retort within the range of *Penstemon scariosus* var. *albifluvis* in Utah and plans to expand its operation to produce 20,000 barrels of oil per day in the next two years at a cost no greater than \$30 per barrel (J. Savage, House Subcommittee on Energy and Mineral Resources, June 23, 2005). In-situ retorting involves injection of a heat source into the rock strata to produce oil from the kerogen. Shale oil then flows to a well and is pumped to the surface. Shell Oil has successfully completed at least five field tests using a modified in-situ conversion process (Johnson et al. 2004a; S. Mut, Senate Energy and Natural Resources Committee Oversight Hearing on Oil Shale Development Efforts, April 12, 2005). Successful oil shale development has also recently occurred in Australia and the Republic of Estonia (T. Lonnie, Senate Energy and Natural Resources Committee Oversight Hearing on Oil Shale Development Efforts, April 12, 2005).

*Tar Sands:* The tar sand resource rock layer is impregnated with a heavy oil substance called bitumen, exhibiting chemical characteristics similar to petroleum. (Blackett 1996). Current technologies for tar sands extraction involves either strip mining, as in the province of Alberta Canada (U.S. Department of Energy 1997), or 2.5-acre well spacing of surface extraction and injection facilities in addition to necessary access roadways and pipelines. (BIA 2002)

#### World Oil Demand and Economics

The Office of Naval Petroleum and Oil Shale Reserves anticipates increased world demand for oil reserves with declining resource availability, driven largely by developing Asian economies (Bunger et al. 2004, Johnson et al. 2004b). Feasibility of oil shale and tar sands development relies largely on economic profitability which is directly tied to the price volatility of conventional petroleum and market demand. Renewed oil shale and tar sand interest is partly due to crude oil price spikes in 2004 and 2005 (Johnson et al. 2004b).

Alberta's successful commercialization of tar sands serves as a model for a profitable oil shale industry in the United States (Johnson et al. 2004b).

A recent report and model by Rand Corporation (Bartis et al. 2005)

estimated that oil shale extraction costs would be approximately \$75–90 per barrel initially, and \$30–\$40 per barrel after a billion barrels of cumulative production. However, the report also concluded that recent advances in thermally conductive in-situ conversion may enable oil shale to compete with crude oil at prices under \$40 per barrel. Shell Oil estimates in-situ retorting costs are estimated at \$30 per barrel (Bartis et al. 2005). Ongoing oil shale and tar sands extraction operations in Alberta cost less than \$20 per barrel (Johnson et al. 2004b). Based on technical and economic considerations, the Rand report (Bartis et al. 2005) projects initial commercial operations to occur in 6–10 years and production growth to commence in 12 years. Oil shale deposits of the Green River formation of Colorado, Utah, and Wyoming contain potentially recoverable kerogen (synthetic petroleum) in excess of 1 trillion barrels (Cashion 1967).

As discussed, Federal government policies, technological advances, and economics are now in place to advance oil shale, tar sands, and oil and gas development in areas also occupied by *P. grahamii*. The level of threats to *P. grahamii* populations has consequently increased. Increase in threat is directly related to the overlap of energy resources and known *P. grahamii* occurrences.

One hundred five of 109 (96 percent) *P. grahamii* occurrences are in the Parachute Creek member of the Green River formation, the remaining 4 sites are in oil shale strata of the Evacuation Creek member of the Green River formation (U.S. Fish and Wildlife Service 2005; Shultz and Mutz 1979; Neese and Smith 1982). Oil-shale beds are most numerous and important in the Parachute Member of the Green River formation, but the underlying Evacuation Creek member also contains a few beds of oil-shale (Pruitt 1961). The 105 occurrences in the Parachute Creek member harbor an estimated 6,100 individuals or 98 percent of the species' estimated population of 6,200 (U.S. Fish and Wildlife Service 2005; Shultz and Mutz 1979; Neese and Smith 1982). The BLM designated the East Tavaputs Plateau and the Southeast Uinta Basin as Oil Shale Lease Areas in the 1970s. These lease areas cover 60 of 109 *P. grahamii* occurrences (U.S. Fish and Wildlife Service 2005). In addition, BLM designated the "PR" Springs Tar Sand Area to identify shallow bituminous sand deposits within *P. grahamii* habitat. The PR Springs tar sand area covers 54 of 109 *P. grahamii* occurrences (49 percent) (U.S. Fish and

Wildlife Service 2005). In total, 96 of 109 (90 percent) *P. grahamii* occurrences are located in high-value oil shale or bituminous (tar sand) areas, comprising approximately 5,700 of the species 6,200 individuals (92 percent of the total known population) (U.S. Fish and Wildlife Service 2005).

The entire range of *P. grahamii* is also underlain with deposits of traditional hydrocarbon resources, primarily natural gas. However, as previously described, active wells are only located at five *P. grahamii* occurrence locations. Thirty-nine active wells are within 1 mile (1.6 km) of *P. grahamii* occupied habitat. Future oil and gas development within *P. grahamii* habitat is likely. Oil and gas development, especially within the PR Springs tar sand area, will likely increase particularly due to the new Energy Policy Act of 2005 stipulations that will allow oil and gas development separate from tar sands extraction. The combined oil and gas and tar sand leasing provisions in place before the Energy Policy Act of 2005 had effectively removed traditional oil and gas leasing from significant portions of Federal lands in *P. grahamii*'s largest population in the Seep Ridge population unit and in the southern portion of the species Evacuation Creek population unit. Those restrictions are now removed. Of the 109 occurrences of *P. grahamii*, 69 (63 percent) are currently leased for oil and gas drilling, or are within established oil and gas fields and have active oil and gas drilling and resource extraction programs. Ninety-six of the species 109 known occurrences (88 percent) are within active seismic exploration areas (BLM 2003).

Two natural gas field development projects within the Vernal BLM Field Office, Resource Development Group (RDG) and Gasco, are being planned in areas with known occurrences of *Penstemon grahamii*. RDG, for which NEPA is scheduled to be completed in January of 2006, entirely encompasses one *P. grahamii* occurrence, overlaps portions of six occurrences, and is immediately adjacent to another six occurrences. The Gasco project, for which the draft EIS is scheduled to be available in spring 2006, entirely encompasses five known *P. grahamii* occurrences. Two additional natural gas field development projects are being proposed in suitable habitat for which field surveys for *P. grahamii* have not been completed to determine presence of the species. These projects are the Dominion Exploration and Production Inc. and Mak J Energy project at Big Pack Mountain and the Enduring

Resources company project at Saddletree Draw.

The biological assessment (BA) for the RDG project states that the project could include destruction of *P. grahamii* occupied habitat, individual plants, and potentially suitable habitat. It further states that project activities have the potential to directly eliminate populations if project construction sites occur on occupied habitat. However, in part because of the plant's candidate status, and the current proposed listing action, BLM has committed to conduct plant surveys and avoid populations and suitable habitat (BLM 2005). Indirect effects such as incidental spread of noxious and exotic weeds or soil erosion may be more difficult to control. The BA concludes that construction activities could make individual *P. grahamii* populations more susceptible to weed infestation, subsequently decreasing plant biodiversity and insect (pollinator) biodiversity. Disturbed areas tend to foster invasion by exotic plant species; existing roads and well pads in the area have a higher density of annuals than undisturbed areas (BLM 2005). Placement of facilities and infrastructure such as roads, pipelines, and well pads can change water flow and the effects of erosion and sedimentation. Shale soils that provide habitat and microclimates for *P. grahamii* can be lost or altered by deposition of sediments, eventually causing the localized loss of populations (BLM 2005).

The species current status as a candidate species has provided the species interim protection on BLM Federal lands from the low level of oil and gas activities that have occurred to date (BLM 1995, 2002, 2003, 2005). The BLM reports that conservation stipulations for the species associated with well locations has prevented adverse modification of the species habitat and possible loss of *P. grahamii* individuals (R. Specht, BLM, 2005, per. com.). Conservation measures include moving well pad and pipeline locations to avoid direct impacts to the species. These measures are likely effective protection mechanisms, particularly at current low development rates. Increased energy development in *P. grahamii* habitat could increase the likelihood of direct loss of individual plants and increased habitat loss and fragmentation.

Oil shale and tar sands technologies include surface strip mining, underground mining, or in-situ retorting. All of these technologies involve surface disturbing activities that could cause habitat loss (Bartis 2005),

and subsequent direct loss of plants and fragmentation of occupied habitats. Open pit mining will result in extensive and permanent changes to surface topography, erosion patterns, subsurface water quality, and flora and fauna (Johnson et al. 2004b, Bartis 2005), and hence to habitat components associated with *P. grahamii* similar to those previously described for oil and gas drilling. In-situ oil shale retorting appears to be much less disruptive to the landscape than surface mining, but facilities associated with surface-based drilling will cause at least decade-long displacement of wildlife, plants, and habitats (Bartis 2005). Oil shale mining, including underground mining, will also require new roads; power distribution systems; water storage and supply facilities; construction staging areas; hazardous materials handling facilities; and residential, commercial, and industrial buildings (Bartis 2005). In-situ tar sand extraction can involve 2.5 ac (1 ha) or less well spacing (BIA 2002, Schamel 2004), which in addition to necessary access roads and pipelines, leaves little to no available habitat for wildlife and plant habitat.

From a biological perspective, habitat loss and fragmentation can result in decreased population size and reduced colonization capacity of plant species. The probability of habitat restoration and natural re-colonization by plants is also low following fragmentation of habitats (Soon 2003). *P. grahamii* are naturally distributed with large distances between known occurrences. Additional fragmentation within known occurrences could negatively affect long-term survival of these populations. Many of the *P. grahamii* occurrences are very small, less than 100 individuals, and often as small as ten or less individuals per location.

Reducing the size of occupied habitat patches through habitat loss or fragmentation can result in higher extinction probabilities due to environmental, demographic, or genetic random events and effects associated with smaller sizes of remnant habitat, greater isolation from neighboring populations, and increased amounts of 'edge' habitat (Jules 1998, Soon 2003). A study of the effects of fragmentation on a common trillium (Jules, 1998) demonstrated that the extinction of local populations of the common plant *Trillium ovatum* was more likely as a result of declining populations near edges.

Reduced connectivity of habitat patches reduces seed and pollen dispersal between habitats. Smaller and isolated populations produce fewer seeds and pollen; and the populations

attract fewer and lower diversity of seed and pollen dispersers (Paschke et al. 2002, Lienert 2003, Soon 2003). Regional survival of plant species is threatened by fragmentation because it reduces connectivity and gene flow (Soon 2003).

We have no way to determine the exact locations of oil shale and tar sand facilities, or the technologies that will be selected; however, it is apparent that increased development will result in direct and indirect effects to plants and their habitats. The correspondence of *P. grahamii* habitat with energy reserves, lease areas, and planned actions will likely mean that at least some portion of *P. grahamii* habitat and populations will be threatened by increased development. The Rand Report also concluded that despite mitigation, reclamation, and compensation efforts, long-term residual damage and disruption is likely, particularly if surface mining and retorting are among the selected technologies (Bartis 2005).

#### Other Activities

Grazing may have localized effects to *P. grahamii*. One site of *P. grahamii* is believed to have been eradicated by livestock trampling. The Dragon Sheep bed site first recorded in a 1982 survey (Neese and Smith 1982) has not been relocated in recent years. This is an area of heavy sheep grazing, and trampling of its habitat is thought to have caused the possible extirpation of this population (J.L. England, pers. comm. U.S. Fish and Wildlife Service, 2003). However, no research has been conducted to document effects of grazing to *P. grahamii*, and we have no substantial information indicating it to be a population level threat.

To date little ORV use has been observed in the species range. Federal and industry personnel are increasingly utilizing ORV in oil and gas field survey and site location development prior to the establishment of oil field road networks (Robert Specht, BLM, Vernal, Utah 2005, pers. comm.). However, we do not have any information indicating that ORV use is a threat to *P. grahamii* or its habitat.

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

*Penstemon grahamii* is a species of horticultural interest. The species is advertised on the internet and plants and seed are available. The Service, however, has no information concerning the impact of collection on wild populations in the species native habitat. In 2004, a *Penstemon* collector approached Red Butte Garden (the Utah

State botanical garden located at the University of Utah) inquiring on how to obtain seeds of *P. grahamii* (J. Lewinsohn, pers. comm. 2004). Several internet sites identify *P. grahamii* as a desirable specimen plant. Given the rarity and beauty of this species, over-collection could be a problem for the species.

#### C. Disease or Predation

*Penstemon grahamii* is grazed by wildlife, including rodents, rabbits, antelope, deer, elk, and insects (Shultz and Mutz 1979; Neese and Smith 1982; R. Specht, BLM, pers. comm., 2005; Lewinsohn, pers. comm., 2005). The species also is grazed by livestock, primarily sheep. Recent attempts to establish pollination studies and population monitoring plots for the species were complicated by the general lack of concentrations of individual plants large enough to conduct those studies (Lewinsohn, pers. comm. 2005). Lewinsohn also reported that all sites visited in southern Uintah County, Utah, were either too small or too heavily grazed to conduct suitable pollination studies. There are, however, no studies on the effects of grazing on this species.

#### D. The Inadequacy of Existing Regulatory Mechanisms

No Federal or State laws or regulations specifically protect *Penstemon grahamii*. The species is not protected by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The BLM administratively recognizes this species for special management consideration, but does not have the legal authority to require Federal mineral lease holders to modify mineral recovery plans and on-the-ground actions solely to protect this species. Some populations occur on private lands, which were given mineral entry patents during the 1920s specifically because of oil shale values. There is no regulatory protection for the species on private lands.

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

We note the presence of exotic weeds within occupied *Penstemon grahamii* sites. These exotic species include *Bromus tectorum* (cheatgrass) and *Halogeton glomeratus* (halogeton) (L. England, U.S. Fish and Wildlife Service, pers. obs. 2003). These invasive exotic species are most abundant along roads and well site locations (R. Specht, BLM, pers. comm. 2004). These species compete with *P. grahamii*, thereby further degrading habitat quality.

Little is known concerning the species' pollination biology. The BLM is currently funding pollination biology studies (R. Bolander, BLM, pers. comm. 2005; J. Lewinsohn, pers. comm. 2005). Collections and observations of pollinators to the flowers of *Penstemon grahamii* have been limited over the past two flowering seasons because of the paucity of flowering plants. The most consistent pollinator of these species is likely to be the wasp *Pseudomasaris vespoides* (V. Tepedino Utah State University, pers. comm. 2005). Because flowers of *P. grahamii* appear to be very scarce, this plant species will usually be unable to support a viable population of *Pseudomasaris vespoides*. In all likelihood, successful reproduction by *P. grahamii* must depend on the occurrence of other concurrently blooming *Penstemon* species which support and keep abundant populations of *Pseudomasaris vespoides* in the area.

Low population numbers and habitat fragmentation pose a threat to rare plant species' genetic potential to adapt to changing environmental conditions (Matthies et al. 2004). Three of the species 5 population habitat units have 200 or fewer individuals in addition 8 smaller occurrences with populations of 20 or fewer individuals are isolated and 10 km (6.2 mi) or more from the core area of the five *P. grahamii* population units. These smaller population sites of *Penstemon grahamii* may not be at levels that would ensure the species long-term demographic stability and genetic viability. The effects of habitat degradation and fragmentation caused by human activities in concert with the effects of deleterious natural phenomena, such as drought, may lead to the extirpations of local occurrences or possible extinction. At present there are no studies or information on these threats relative directly to *P. grahamii*.

#### Determination

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to *Penstemon grahamii*. Habitat destruction and degradation as a consequence of energy development throughout the species' range pose a serious threat to long-term viability. Habitat loss and fragmentation also will exacerbate threats arising from very low natural population numbers and restricted distribution; natural phenomena such as drought and wildlife grazing; livestock grazing; and horticultural collection. On the basis of the best available information, we are proposing to list *Penstemon grahamii* as a threatened species, and we herein

propose this listing. Threatened status reflects the vulnerability of this species to factors that negatively affect the species and its limited and restricted habitat. While not in immediate danger of extinction, *P. grahamii* may have the strong potential to become an endangered species in the foreseeable future if present threats increase and projected energy development scenarios, especially oil shale and tar sand, occur.

We are soliciting comments on this proposed rule and threats to the species. Despite recent policy direction (e.g., Energy Policy Act 2005), the long-term technological and economic feasibility of oil shale and tar sands development are uncertain (Bartis 2005). We seek specific information on any available preliminary results from the recent lease nominations for research, development, and demonstration of oil shale recovery technologies on Bureau of Land Management (BLM) lands; success of ongoing oil shale or tar sands development projects, particularly in the Green River formation; available economic and technological analyses; and specific information detailing definitive effects of these operations to environmental resources, as primarily related to losses of plant individuals, loss or fragmentation of plant habitat, and loss or declines in plant pollinators. Similarly, we request any available information on ongoing or proposed oil and gas drilling activities within *P. grahamii* habitat.

#### Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing results in public awareness and conservation by Federal, State, and local agencies, private organizations, and individuals. The Act provides for possible cooperation with the States and requires that recovery actions be carried out for all listed species. The protection required of Federal agencies and the prohibitions against certain activities involving listed plants are discussed in "Effect of Critical Habitat Designation" for critical habitat and are further discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies 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 being designated. Regulations implementing this interagency cooperation provision

of the Act are codified at 50 CFR part 402. Section 7(a)(4) requires Federal agencies to confer with the Service on any action that is likely to jeopardize the continued existence of a species proposed for listing or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service.

Federal agency actions that may require conference and/or consultation as described in the preceding paragraph include BLM leasing and permitting of oil and gas resources, oil shale, tar sands, Gilsonite, and other leasable minerals on lands under their jurisdiction. Additionally BLM must consult on livestock grazing leases and management, and roads and ORV travel regulations and management. Department of Energy actions involving oil and gas and oil shale development also may require conference and or consultation. Department of Transportation activities involving roads or highways within the species habitat also may require conference and/or consultation.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to threatened plants. All prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.71 apply. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to import or export, transport in interstate or foreign commerce in the course of a commercial activity, sell or offer for sale in interstate or foreign commerce, or remove and reduce the species to possession from areas under Federal jurisdiction. In addition, for plants listed as endangered, the Act prohibits the malicious damage or destruction on areas under Federal jurisdiction and the removal, cutting, digging up, or damaging or destroying of such plants in knowing violation of any State law or regulation, including State criminal trespass law. Section 4(d) of the Act allows for the provision of such protection to threatened species through regulation. This protection may apply to this species in the future if regulations are promulgated. Seeds from cultivated specimens of threatened plants are exempt from this prohibition provided

that their containers are marked "Of Cultivated Origin." Certain exceptions to the prohibitions apply to agents of the Service and State conservation agencies.

The Act and 50 CFR 17.72 also provide for the issuance of permits to carry out otherwise prohibited activities involving threatened plants under certain circumstances. Such permits are available for scientific purposes and to enhance the propagation and survival of the species. For threatened plants, permits also are available for botanical or horticultural exhibition, educational purposes, or special purposes consistent with the purposes of the Act. *Penstemon grahamii* is an extremely attractive plant and is known to be in cultivation. It is reasonable to expect a demand for the species for horticultural purposes. However the species is very rare in its natural environment. Trade permits may be sought, but should be granted for only activities contributing to the species overall conservation. Requests for copies of the regulations regarding listed species and inquires about prohibitions and permits may be addressed to U.S. Fish and Wildlife Service, 134 Union Blvd., Lakewood, Colorado 80228.

#### Critical Habitat

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

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

Currently, only 470 species, or 37 percent of the 1,264 listed species in the U.S. under the jurisdiction of the Service, have designated critical habitat.

We address the habitat needs of all 1,264 listed species through conservation mechanisms such as listing, section 7 consultations, the section 4 recovery planning process, the section 9 protective prohibitions of unauthorized take, section 6 funding to the States, the section 10 incidental take permit process, and cooperative, nonregulatory efforts with private landowners. The Service believes that it is these measures that may make the difference between extinction and survival for many species.

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

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

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

### *Procedural and Resource Difficulties in Designating Critical Habitat*

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

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

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

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

### *Critical Habitat Background*

Critical habitat is defined in section 3 of the Act as: (i) The specific areas within the geographical area occupied by a species, at the time it is listed in

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

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

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

Habitat occupied at the time of listing may be included in critical habitat only if the essential features thereon may require special management or protection. Thus, we do not include areas where existing management is sufficient to conserve the species. (As discussed below, such areas may also be

excluded from critical habitat pursuant to section 4(b)(2).) Accordingly, when the best available scientific data do not demonstrate that the conservation needs of the species so require, we will not designate critical habitat in areas outside the geographical area occupied by the species at the time of listing. An area currently occupied by the species but that was not known to be occupied at the time of listing will likely, but not always, be essential to the conservation of the species and, therefore, typically included in the critical habitat designation.

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

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. For these reasons, critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery.

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

#### Methods

As required by section 4(b)(2) of the Act, we use the best scientific data available in determining areas that contain the features that are essential to the conservation of *Penstemon grahamii* (Shultz and Mutz 1979, Neese and Smith 1982, Borland 1987, Franklin 1992, 1995, Colorado Natural Heritage Program 2005, Utah Natural Heritage Program 2005). We do not propose any areas outside the geographical area presently occupied by the species.

We have also reviewed available information that pertains to the habitat requirements of this species (Shultz and Mutz 1979, Neese and Smith 1982, Lewinsohn et al. 2005).

#### Prudency Determination

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, we designate critical habitat at the time the species is determined to be endangered or threatened. Our regulations (50 CFR 424.12(a)(1)) state that the designation of critical habitat is not prudent when one or both of the following situations exist: (1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or (2) such designation of critical habitat would not be beneficial to the species.

In the last few years, a series of court decisions have overturned our determinations that designation of critical habitat would not be prudent for a variety of species (e.g., *Natural Resources Defense Council v. U.S. Department of the Interior*, 113 F.3d

1121 (9th Cir. 1997); *Conservation Council for Hawaii v. Babbitt*, 2 F. Supp. 2d 1280 (D. Hawaii 1998)). Based on the standards applied in those judicial opinions, we have examined the question of whether critical habitat for *P. grahamii* would be prudent.

There is documentation of commercial and private collection to this species and that activity is identified as a potential threat to the species (see factor "B. Overutilization for Commercial Recreational, Scientific, or Educational Purposes" in the "Summary of Factors Affecting the Species" above). However, we believe the significance of this collection to the viability of the species population is not known. Therefore this threat, if any, to *P. grahamii* is outweighed by the conservation benefits derived from the designation of critical habitat for this species. Additionally, much of the habitat where *P. grahamii* occurs is under Federal land management where the threat of collection should be reduced by enforcement of section 9 of the Act. Consistent with recent case law, we must weigh the benefits in proposing to designate critical habitat for *P. grahamii* against the harm which could be caused by disclosure of their location. We find that these benefits outweigh the risk of increased collection because the locations are already known and available to the public.

Although we make a detailed determination of the habitat needs of a listed species during the recovery planning process, the Act has no provision to delay designation of critical habitat until such time as a recovery plan is prepared. We reviewed the available information pertaining to habitat characteristics where this species is located. This and other information represent the best scientific and commercial data available, and led us to conclude that the designation of critical habitat is both prudent and determinable for *Penstemon grahamii*.

#### Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas to designate as critical habitat, we must consider those physical and biological features (primary constituent elements) essential to the conservation of the species. These primary constituent elements include, but are not limited to, space for individual and population growth and for normal behavior; food, water, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing of offspring; and habitats that are protected from disturbance or are

representative of the historical geographical and ecological distributions of a species. The areas we are proposing to designate as critical habitat for *Penstemon grahamii* provide the primary constituent elements noted below.

We determined the specific primary constituent element for *Penstemon grahamii* based on data and studies on its general habitat and life history requirements as described in Shultz and Mutz 1979; Neese and Smith 1982; Borland 1987; and Franklin 1993, 1995, Colorado Natural Heritage Program 2005, Utah Natural Heritage Program 2005, and current research in progress by Lewinsohn and Tepedino (pers. comm. 2005).

*Penstemon grahamii* is narrowly endemic to highly basic soils derived from the Green River formation. These soils provide the root microhabitat essential for the species growth and reproduction. These soils are very shallow with virtually no soil horizon development. The little soil above the consolidated calcareous shale rock of its parent material is usually very light clay derived from thinly bedded shale. The soil surface is covered with broken shale chips usually less than 5 cm (2 in) across underlain with larger shale chips to a depth of 5 to 10 cm (2 to 4 in). The shale chips usually weather to a light tan color. Freshly broken chips exhibit a very dark brown interior due to the high organic content of the kerogen in the oil shale. The majority of the species occurrences and those with the largest population numbers are from the oil shale rich Parachute Creek member of the Green River formation. The remaining occurrences are derived from oil shale of the Evacuation Creek member of the Green River formation (Shultz and Mutz 1979).

The species composition of *P. grahamii*'s plant community further describes the primary constituent element of *P. grahamii* critical habitat. Although not being proposed as a PCE, the plant community is nonetheless useful in delineating the species' PCE in the field environment. Dwarf shrubs and pulvinate (mound or cushion like) plant life forms exhibit a distinctive plant community type occurring on these calcareous shale sites. This vegetative community, with the specific soil described above, provides the sole known habitat for the species and is thus considered essential for the species growth and reproduction. The vascular plant species most commonly associated with *Penstemon grahamii* include *Artemisia pygmaea* (pygmy sage), *Cercocarpus montanus*, (mountain mahogany), *Chamaechaenactis scoposa*

(Eastwood's chaenactis), *Cryptantha grahamii* (Grahams' catseye) *Elymus salinus* (Salina wild-rye), *Ephedra torreyana* (Mormon tea), *Eriogonum corymbosum* (Fremont's wild-buckwheat), *Eriogonum ephedroides* (Ephedra wild-buckwheat), *Glossopetalon spinescens* (Utah greasewood), *Parthenium ligulatum* (low feverfew), *Tetradymia nuttallii* (Nuttall's horse-bush) and *Yucca harrimaniae* (Harriman's yucca) (Shultz and Mutz 1979, Neese and Smith 1982). In addition the rare oil shale endemic species *Penstemon scariosus* var. *albifluvis* (White River penstemon) and *Cryptantha barnebyi* (Barneby's catseye) are in part sympatric with *P. grahamii*. Sites at higher elevation are occasionally within sparse piñon-juniper woodland dominated by *Juniperus osteosperma* (Utah juniper) and *Pinus edulis* (Colorado piñon). *Penstemon grahamii* sites at lower elevations occasionally occur within a sparse desert shrubland dominated by *Atriplex confertifolia* (shadscale). In both cases, however, *P. grahamii* habitat is characterized by the sparsely vegetated raw shale surface indicative of the species' habitat throughout its range. Sagebrush-grass parks, mixed mountain shrubland, and greasewood bottoms are not primary constituent elements. Piñon-juniper woodlands and mixed desert shrubland, in large part, are not part of the PCE unless they have extant populations of *P. grahamii* and the associated vegetation described above.

Pollinators are important to *P. grahamii*. We believe the proposed critical habitat sites include necessary pollinator habitat. However areas adjacent to the marl shale knolls and slopes occupied by *P. grahamii* are important to the species pollinators. The primary pollinator of *P. grahamii* is the wasp *Pseudomasaris vespoides*. This masarid wasp nests in the ground within and adjacent to the shale knoll and slope habitat of *P. grahamii*. Due to the paucity of *P. grahamii* individuals, the maintenance of *Pseudomasaris vespoides* populations will require populations of *Penstemon* species other than *P. grahamii*. Populations of other *Penstemon* species in areas adjacent to *P. grahamii* occupied habitat are essential to support the pollinating wasp's population during periods of poor *P. grahamii* floral availability (Lewinsohn et al. 2005). These *Penstemon* species include *Penstemon pachyphyllus*, *Penstemon fremontii*, *Penstemon strictus*, and *Penstemon scariosus*. We are unable to adequately delineate specific pollinator habitat and consequently are not identifying a

specific Primary Constituent Element for pollinator habitat.

The primary constituent element (PCE) of *Penstemon grahamii* critical habitat is: Calcareous shale knolls and slopes occupied by extant occurrences of *Penstemon grahamii* and dominated by dwarf shrubs and pulvinate plant life forms characteristic of the species plant community type.

#### Criteria Used To Identify Critical Habitat

We have delineated all known locations with extant populations of *P. grahamii* into 109 occurrences. We grouped these occurrences into five units separated by unoccupied gaps in the species range. Available population data information is summarized for the broader units rather than each of the smaller occurrences (Shultz and Mutz 1979, Neese and Smith, 1982, Borland 1987, Franklin 1993, 1995, Colorado Natural Heritage Program 2005, Utah Natural Heritage Program 2005). In addition the consolidating occurrences at this scale provides for effective identification and naming of these sites to land owners and managers.

The boundaries of *Penstemon grahamii* critical habitat occurrences were drawn to incorporate the PCE at each of the species' known locations. We have mapped these occurrences implementing GIS technology on a base map using digital orthophoto quadrangles and National Agricultural Imagery Program of the species habitat and *P. grahamii* survey data. These occurrences were delineated by heads-up digitizing with Universal Transverse Mercator (UTM) coordinates around each known *P. grahamii* occurrence. These occurrences include the PCE and provide the specific location, shape, and size of each critical habitat area. Each occurrence is further located and identified by the cadastral land survey Township, Range and Section. The imprecision of field mapping prevents finer habitat delineation. Any land areas within these parcels without the PCE are not critical habitat.

We are proposing to designate critical habitat on lands that we have determined are occupied at the time of the proposed listing and contain sufficient primary constituent elements to support life history functions essential for the conservation of the species.

#### Special Management Considerations and Protection

When designating critical habitat, we assess whether the areas determined to be occupied at the time of listing and contain the primary constituent

elements may require special management considerations or protections.

The species' current status as a candidate species has provided the species interim protection on BLM Federal lands from the low level of oil and gas activities that have occurred to date (BLM 1995, 2002, 2003, 2005). The BLM reports that conservation stipulations for the species associated with well locations has prevented adverse modification of the species habitat and possible loss of *P. grahamii* individuals (R. Specht, BLM, 2005, per. com.). Conservation measures include moving well pad and pipeline locations to avoid direct impacts to the species. These measures are likely effective protection mechanisms, particularly at current low development rates. Increased energy development in *P. grahamii* habitat will increase the likelihood of direct loss of individual plants and increased habitat loss and fragmentation. The continuance of these conservation measures is needed to maintain current populations of the species. Additional conservation measures, including the designation of areas dedicated to the conservation of *P. grahamii* and its habitat, may be necessary for the species long-term conservation in the event of large-scale energy development within its occupied habitat.

The majority of occurrences (5 of 6) in the Raven Ride (Unit E) population habitat unit are currently being managed by BLM Meeker Field Office as the Raven Ridge Area of Critical Environmental Concern (ACEC). The Raven Ridge ACEC was established in 1987 and involved an agreement between BLM and Colorado Natural Areas Program. The explicit purpose of the Raven Ridge ACEC is to provide for the conservation of 10 rare endemic plant species with unique habitat on Raven Ridge and for *Penstemon grahamii* and *P. albifluvis* (virtually their entire population within the State of Colorado). The Raven Ridge ACEC sets out goals for a management plan for the area, but to date BLM has not completed formal management plans for these areas. If a plan is finalized prior to our final determination, we will consider whether it provides special management and we may exclude these areas if we determine that no additional special management is required.

#### Proposed Critical Habitat Designation

In proposing critical habitat for this species, we solicited information from knowledgeable botanists and biologists and recommendations contained in BLM sponsored status reports (Shultz

and Mutz 1979; Neese and Smith 1982; Borland 1987; Franklin 1993, 1995; BLM 1987, Colorado Natural Heritage Program 2005, Utah Natural Heritage Program 2005). We also reviewed the available literature pertaining to habitat requirements, historic localities, and current localities for these species. The proposed critical habitat described below constitutes our best assessment of areas needed for the conservation of *P. grahamii* and is based on the best available scientific and commercial information available. The proposed areas have features that are essential to the conservation of the species because they are within the geographical area occupied by *P. grahamii*, and because they currently have the primary constituent element (see description of primary constituent elements, above).

Although this species occurs on only a few sites, important considerations in selection of areas proposed in this rule include factors specific to each geographic area or complex of areas, such as size, connectivity, and habitat diversity, as well as range-wide recovery considerations, such as genetic diversity and representation of all major portions of the species' historical ranges. The proposed critical habitat designation includes the core areas of each of *P. grahamii*'s 5 population units. Nine small outlier occurrences—3 from the Sand Wash unit (Unit A), 5 from the Seep Ridge unit (Unit B), and 1 from the Evacuation Creek unit (Unit C)—are not included in this proposed rule. Uncertainty of occurrence at other sites may result in small areas of occupied habitat not being included in the designation.

We propose the following areas as critical habitat (see the "Regulation Promulgation" section of this proposed rule for exact boundary descriptions):

#### *Unit A—Sand Wash Unit*

The westernmost critical habitat unit, named the Sand Wash Unit (Unit A), occurs in the vicinity of Sand Wash in southwestern Uintah and adjacent Duchesne Counties, Utah. This population consists of 10 separate occurrences with a population estimated at 135 individuals (Shultz and Mutz 1979, Franklin 1993, Utah Natural Heritage Program 2005). We are proposing to designate critical habitat for seven of these occurrences, with an estimated population of 100 individuals (subunits 01–07). An area of 118.07 ac (47.15 ha) is being proposed for designation in these seven subunits.

The proposed critical habitat areas constitute the core of the *P. grahamii* population in this unit, including the largest occurrence in the western

portion of the species range. This population unit has relatively small numbers (approximately 2 percent) compared to those population units in the center of the species range. This unit is the most isolated of the species population units. This portion of the species population has minor morphological differences from the remainder of its population (Shultz and Mutz 1979) and may, due to geographic isolation, be genetically divergent from the remainder of the species population. Three small outlier population occurrences are not included in this critical habitat unit.

#### *Unit B—Seep Ridge Unit*

A second critical habitat unit, named the Seep Ridge Unit (Unit B), occurs approximately 17 miles east of the Sand Wash population unit in the vicinity of Buck, Sunday School, and Klondike Canyons near the Seep Ridge road in south central Uintah County, Utah. This population consists of 53 separate occurrences with an estimated population of 3200 individuals (Shultz and Mutz 1979, Utah Natural Heritage Program 2005), but we are proposing to designate as critical habitat 48 of these occurrences with an estimated population of 3100 individuals (subunits 01–48). An area of 1,428.44 ac (579.1 ha) is being proposed for designation in 48 subunits.

This critical habitat unit encompasses the largest portion of the species' population, with approximately 50 percent of the total individuals within proposed critical habitat boundaries. Maintenance of this population unit is essential for the species long-term survival. The majority of the species population and habitat area in this unit is on Federal lands under BLM management. Significant portions are on State of Utah lands. Five small outlier population occurrences are not included in this Unit.

#### *Unit C—Evacuation Creek Unit*

A third critical habitat unit, named the Evacuation Creek unit (Unit C), occurs approximately 10 miles east of the Seep Ridge unit in the Asphalt Wash and Evacuation Creek drainages near the abandoned Gilsonite mining towns of Dragon and Rainbow. This population is in southeastern Uintah County, Utah, and adjacent Rio Blanco County, Colorado. This population consists of 30 separate occurrences with an estimated population of 2550 individuals (Neese and Smith 1982, Franklin 1995, Utah Natural Heritage Program 2005). We are proposing to designate as critical habitat 29 of these occurrences with an estimated population of 2,540

individuals (subunits 01–29). An area of 1,577.9 ac (638.6 ha) is being proposed for designation in the 29 subunits.

This critical habitat unit is the species second largest with approximately 41 percent of the species total population. This unit, along with the Seep Ridge unit described above, is essential for the species long-term survival. The majority of this species population in this unit is on private land. Significant portions, however, are on Federal land. One small occurrence on the margin of this unit was not included. Recent attempts to relocate the species at this occurrence have failed leading to the presumption of extirpation for this site.

#### *Unit D—White River Unit*

A fourth critical habitat unit, named the White River Unit (Unit D), occurs approximately 5 miles north of the Evacuation Creek unit in Hells Hole and Weaver Canyons immediately south of the White River. This population is in eastern Uintah County, Utah, and consists of 9 separate occurrences with an estimated population of 115 individuals (Neese and Smith 1982, Franklin 1995, Utah Natural Heritage Program 2005). We are proposing to designate as critical habitat all 9 of these occurrences (subunits 01–09). An area of 197.1 ac (79.8 ha) is being proposed for designation in the 9 subunits.

This critical habitat unit is the species smallest, containing approximately 2 percent of the species total. This population unit is important as a link between the species to the largest population units to the south and southwest and the species Colorado population to the northeast.

#### *Unit E—Raven Ridge Unit*

A fifth critical habitat unit, named the Raven Ridge unit (Unit E), occurs approximately 7 miles northwest of the White River unit along the west flank of Raven Ridge and north of the White River between Raven Ridge and the Utah border in extreme western Rio Blanco County, Colorado. This population consists of 6 separate occurrences with an estimated population of 200 individuals (Borland 1987, Colorado Natural Heritage Program 2005). We are proposing to designate as critical habitat all 6 of these occurrences (subunits 01–06). An area of 175.42 ac (71 ha) is being proposed for designation in the 6 subunits.

This Unit harbors approximately 3 percent of the species total population. This Unit includes virtually the species entire population in Colorado (a portion of a small population occurs at the eastern margin of the Evacuation Creek population unit at the Colorado-Utah

border). As in the case of the Sand Wash Unit, the Raven Ridge Unit is at the extreme end of the species range. As such this population is important for its representation of a portion of the full spectrum of the species genetic diversity.

**Land Ownership**

Most of the land included in the designation is Bureau of Land Management administered Federal land. Significant portions are State of Utah lands. The remaining lands are private lands; these lands are all mineral entry fee lands patented for their oil shale

values during the 1920s. *P. grahamii*, 85 occurrences are on public land managed by BLM, 17 occurrences are on State of Utah lands, and 13 occurrences are on private lands (15 occurrences have split Federal, State, and private ownership).

The following table summarizes proposed *P. grahamii* critical habitat land ownership and acreages:

Critical habitat population unit	Federal (BLM) land ownership	State of Utah land ownership	Private land ownership	Total acres
Unit A .....	111.45	0	13.35	124.80
Unit B .....	1279.64	143.80	4.97	1428.39
Unit C .....	939.71	265.62	372.62	1577.95
Unit D .....	111.91	13.16	72.05	197.12
Unit E .....	174.10	0	1.32	175.42
Total .....	2616.81	422.56	464.31	3503.68

**Effects of Critical Habitat Designation**

*Section 7 Consultation*

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

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

Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a proposed

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

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

The results of an informal conference are typically transmitted in a conference report; while the results of a formal conference are typically transmitted in a conference opinion. Conference opinions on proposed critical habitat are typically prepared according to 50 CFR 402.14, as if the proposed critical habitat were designated. We may adopt the conference opinion as the biological opinion when the critical habitat is

designated, if no substantial new information or changes in the action alter the content of the opinion (see 50 CFR 402.10(d)). As noted above, any conservation recommendations in a conference report or opinion are strictly advisory.

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

When we issue a biological opinion concluding that a project is likely to result in jeopardy to a listed species or the destruction or adverse modification of critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. “Reasonable and prudent alternatives” are defined at 50 CFR 402.02 as alternative actions identified during consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency’s legal authority and jurisdiction, that are economically and technologically feasible, and that the Director believes

would avoid jeopardy to the listed species or destruction or adverse modification of critical habitat. Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

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

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

#### *Application of the Jeopardy and Adverse Modification Standards for Actions Involving Effects to Penstemon grahamii and Its Critical Habitat*

##### Jeopardy Standard

Prior to and following designation of critical habitat, the Service has applied an analytical framework for *Penstemon grahamii* jeopardy analyses that relies heavily on the importance of core area populations to the survival and recovery of the *P. grahamii*. The section 7(a)(2) analysis is focused not only on these populations but also on the habitat conditions necessary to support them.

The jeopardy analysis usually expresses the survival and recovery

needs of *Penstemon grahamii* in a qualitative fashion without making distinctions between what is necessary for survival and what is necessary for recovery. Generally, if a proposed Federal action is incompatible with the viability of the affected core area population(s), inclusive of associated habitat conditions, a jeopardy finding is considered to be warranted, because of the relationship of each core area population to the survival and recovery of the species as a whole.

##### Adverse Modification Standard

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

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

Activities that may destroy or adversely modify critical habitat are those that alter the PCEs to an extent that the conservation value of critical habitat for the *P. grahamii* is appreciably reduced. Activities that, when carried out, funded, or authorized by a Federal agency, may affect critical habitat and therefore result in consultation for the *Penstemon grahamii* include, but are not limited to:

- (1) Activities that have the potential to appreciably degrade or destroy *Penstemon grahamii* habitat and its PCE, including current oil and gas development, future oil shale and tar sand development, road building, ORV use, herbicide use, and intensive livestock grazing;
- (2) Alteration of existing hydrology by lowering the groundwater table or redirection of sheet flow from areas adjacent to deflation hollows;
- (3) Compaction of soil through the establishment of new trails or roads;

(4) Activities that foster the introduction of non-native vegetation, particularly noxious weeds, or create conditions that encourage the growth of non-natives. These activities could include, but are not limited to:

Irrigation, supplemental feeding of livestock, and ground disturbance associated with pipelines, roads, and other soil-disturbing activities; and

(5) Indirect effects that appreciably decrease habitat value or quality (e.g., construction of fencing along the perimeter of the critical habitat leading to cattle congregation at the fence and resultant focused disturbance, erosion, and changes to drainage patterns, soil stability, and vegetative community composition).

We consider all of the units proposed as critical habitat to contain features essential to the conservation of *Penstemon grahamii*. All units are within the geographic range of the species and all were occupied by the species at the time of listing.

Application of Section 3(5)(A) and Exclusions Under Section 4(b)(2) of the Act

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

There are multiple ways to provide management for species habitat. Statutory and regulatory frameworks that exist at a local level can provide such protection and management, as can lack of pressure for change, such as areas too remote for anthropogenic disturbance. Finally, State, local, or private management plans as well as management under Federal agencies jurisdictions can provide protection and management to avoid the need for designation of critical habitat. When we consider a plan to determine its adequacy in protecting habitat, we consider whether the plan as a whole will provide the same level of protection that designation of critical habitat would provide. The plan need not lead to exactly the same result as a designation in every individual

application, as long as the protection it provides is equivalent, overall. In making this determination, we examine whether the plan provides management, protection, or enhancement of the PCEs that is at least equivalent to that provided by a critical habitat designation, and whether there is a reasonable expectation that the management, protection, or enhancement actions will continue into the foreseeable future. Each review is particular to the species and the plan, and some plans may be adequate for some species and inadequate for others.

The Raven Ridge ACEC sets out goals for a management plan for the area, but to date BLM has not completed formal management plans for these areas. If a plan is finalized prior to our final determination, we will consider whether it provides special management and we may exclude these areas if we determine that no additional special management is required.

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

Under section 4(b)(2), in considering whether to exclude a particular area from the designation, we must identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and determine whether the benefits of exclusion outweigh the benefits of inclusion. If an exclusion is contemplated, then we must determine whether excluding the area would result in the extinction of the species. We are not proposing or considering any exclusions under section 4(b)(2).

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. No. 108-136) amended the ESA to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the ESA (16 U.S.C. 1533(a)(3)(B)(i))

now provides: "The Secretary shall not designate 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 integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation." We consult with the military on the development and implementation of INRMPS for installations with listed species. No military lands are included within the areas proposed for designation as critical habitat, therefore no lands will be subject to non-inclusion under the authority of 4(a)(3) of the Act.

#### Economic Analysis

An analysis of the economic impacts of proposing critical habitat for the *Penstemon grahamii* is being prepared. We will announce the availability of the draft economic analysis as soon as it is completed, at which time we will seek public review and comment. At that time, copies of the draft economic analysis will be by contacting the Utah Field Office directly (see **ADDRESSES** section).

#### Peer Review

In accordance with our joint policy published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of such review is to ensure that our critical habitat designation is based on scientifically sound data, assumptions, and analyses. We will send these peer reviewers copies of this proposed rule immediately following publication in the **Federal Register**. We will invite these peer reviewers to comment, during the public comment period, on the specific assumptions and conclusions regarding the proposed designation of critical habitat.

We will consider all comments and information received during the comment period on this proposed rule during preparation of a final rulemaking. Accordingly, the final decision may differ from this proposal.

#### Public Hearings

The Act provides for one or more public hearings on this proposal, if requested. Requests must be received within 45 days of the date of publication of the proposal in the **Federal Register**. Such requests must be made in writing and be addressed to the Field

Supervisor at the address in the **ADDRESSES** section above.

#### Clarity of the Rule

Executive Order 12866 requires each agency to write regulations that are easy to understand. We invite your comments on how to make this rule easier to understand including answers to questions such as the following: (1) Are the requirements in the rule clearly stated? (2) Does the rule contain technical language or jargon that interferes with its clarity? (3) Does the format of the rule (grouping and order of sections, use of headings, paragraphing, etc.) aid or reduce its clarity? (4) Would the rule be easier to understand if it were divided into more (but shorter) sections? (5) Is the description of the rule in the **SUPPLEMENTARY INFORMATION** section of the preamble helpful in understanding the proposed rule? What else could we do to make the rule easier to understand?

Send a copy of any comments that concern how we could make this rule easier to understand to Office of Regulatory Affairs, Department of the Interior, Room 7229, 1849 C Street, NW., Washington, DC 20240. You also may e-mail the comments to this address: [Exsec@ios.doi.gov](mailto: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 it is not anticipated to 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. We are preparing a draft economic analysis of this proposed action, which will be available for public comment, to determine the economic consequences of designating the specific area as critical habitat. This economic analysis also will be used to determine compliance with Executive Order 12866, Regulatory Flexibility Act, Small Business Regulatory Enforcement Fairness Act, and Executive Order 12630.

Within these areas, the types of Federal actions or authorized activities that we have identified as potential concerns are listed above in the section on Section 7 Consultation. The availability of the draft economic analysis will be announced in the **Federal Register** and in local

newspapers so that it is available for public review and comments. The draft economic analysis can be obtained by contacting the Utah Field Office directly (see **ADDRESSES** section).

#### *Regulatory Flexibility Act*

Under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*, 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 effects 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 Regulatory Flexibility Act (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.

At this time, the Service lacks the available economic information necessary to provide an adequate factual basis for the required RFA finding. Therefore, the RFA finding is deferred until completion of the draft economic analysis prepared pursuant to section 4(b)(2) of the ESA and E.O. 12866. This draft economic analysis will provide the required factual basis for the RFA finding. Upon completion of the draft economic analysis, the Service will publish a notice of availability of the draft economic analysis of the proposed designation and reopen the public comment period for the proposed designation for an additional 60 days. The Service will include with the notice of availability, as appropriate, an initial regulatory flexibility analysis or a certification that the rule will not have a significant economic impact on a substantial number of small entities accompanied by the factual basis for that determination. The Service has concluded that deferring the RFA finding until completion of the draft economic analysis is necessary to meet the purposes and requirements of the RFA. Deferring the RFA finding in this manner will ensure that the Service makes a sufficiently informed determination based on adequate economic information and provides the necessary opportunity for public comment.

#### *Executive Order 13211*

On May 18, 2001, the President issued an Executive Order (13211) on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. Although this proposed designation of critical habitat is a significant regulatory action under Executive Order 12866, it is not expected to significantly affect energy supplies, distribution, or use. Prohibitions to carry out energy development or exploration are not anticipated as a result of this action within the proposed designation. Based on our experience with section 7 consultations 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 must be economically feasible and within the scope of authority of the Federal agency involved in the consultation. As we have no consultation history for *Penstemon grahamii*, 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. The kinds of actions that may be included in future reasonable and prudent alternatives for energy development include stipulations on permits to drill for natural gas or oil and mineral leases may be necessary, in some circumstances, to protect occupied habitat from contamination or degradation. However, these measures and stipulations are 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), the Service makes the following findings:

This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute or regulation that would impose an enforceable duty upon State, local, tribal governments, or the private sector and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.”

These terms are defined in 2 U.S.C. 658(5)–(7). “Federal intergovernmental mandate” includes a regulation that “would impose an enforceable duty upon State, local, or tribal governments” with two exceptions. It excludes “a condition of Federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless the regulation “relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding,” and the State, local, or tribal governments “lack authority” to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; AFDC work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that 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.

We do not believe that this rule will significantly or uniquely affect small governments because the majority of lands proposed for critical habitat designation are Federal lands under

jurisdiction of the BLM or State of Utah lands. As such, Small Government Agency Plan is not required. We will, however, further evaluate this issue as we conduct our economic analysis and revise this assessment if appropriate.

#### Takings

In accordance with Executive Order 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of the proposed listing and designation of critical habitat for *Penstemon grahamii*. The takings implications assessment concludes that this proposed rule does not pose significant takings implications. A copy of this assessment is available by contacting the Utah Field Office (see **ADDRESSES** section).

#### Federalism

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with DOI and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in Utah and Colorado. The designation of critical habitat in areas currently occupied by the *Penstemon grahamii* imposes no additional restrictions to those currently in place and, therefore, has little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments in that the areas that contain the features essential to the conservation of the species are more clearly defined, and the primary constituent elements of the habitat necessary to the conservation of the species are specifically identified. While making this definition and identification does not alter where and what federally sponsored activities may occur, it may assist these local governments in long-range planning (rather than waiting for case-by-case section 7 consultations to occur).

#### Civil Justice Reform

In accordance with Executive Order 12988, the Office of the Solicitor has determined that the rule does not

unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Endangered Species Act. This proposed 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 *Penstemon grahamii*.

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

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

#### National Environmental Policy Act

It is our position that, outside the Tenth Circuit, we do not need to prepare environmental analyses as defined by the NEPA in connection with designating critical habitat under the Endangered Species Act of 1973, as amended. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This assertion was upheld in the courts of the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 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 the *Penstemon grahamii* pursuant to the Tenth Circuit ruling in *Catron County Board of Commissioners v. U.S. Fish and Wildlife Service*, 75 F.3d 1429 (10th Cir. 1996), we will undertake a NEPA analysis for critical habitat designation and notify the public of the availability of the draft environmental assessment for this proposal when it is finished.

#### 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 requirement at 512 DM 2, we understand that recognized Federal Tribes must be related to on a Government-to-Government basis. We are not aware of any Tribal lands essential for the conservation of *Penstemon grahamii*. Therefore, we are not proposing to designate critical habitat for these species on Tribal lands. Additionally, the proposed designation does not contain any lands that we have identified as impacting Tribal trust resources.

#### References Cited

A complete list of references cited in this rule is available upon request from the Field Supervisor, U.S. Fish and Wildlife Service, West Valley, Utah (see **ADDRESSES**).

#### Author

The primary author of this document is John L. England, Utah Field Office, U.S. Fish and Wildlife Service, West Valley, Utah (see **ADDRESSES**).

#### List of Subjects in 50 CFR Part 17

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

#### Proposed Regulation Promulgation

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

#### PART 17—[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. Amend § 17.12(h) by adding the following, in alphabetical order under Endangered and Threatened Plants:

#### § 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>Penstemon grahamii</i>	* Graham's beardtongue.	* U.S.A. (CO, UT) .....	* Scrophulariaceae ....	* T	* TBD	* 17.96(a)	* NA
*	*	*	*	*	*	*	*

3. Amend § 17.96(a) by adding critical habitat for *Penstemon grahamii* (Graham's beardtongue) under the family Scrophulariaceae in the same alphabetical order as the species occurs in § 17.12(h) to read as follows:

**§ 17.96 Critical habitat—plants.**

(a) *Flowering plants.*

\* \* \* \* \*

Family Scrophulariaceae: *Penstemon grahamii* (Graham's beardtongue).

(1) Critical habitat units are depicted for Rio Blanco County, Colorado, and

Duchesne and Uintah Counties, Utah, on the maps and as described below.

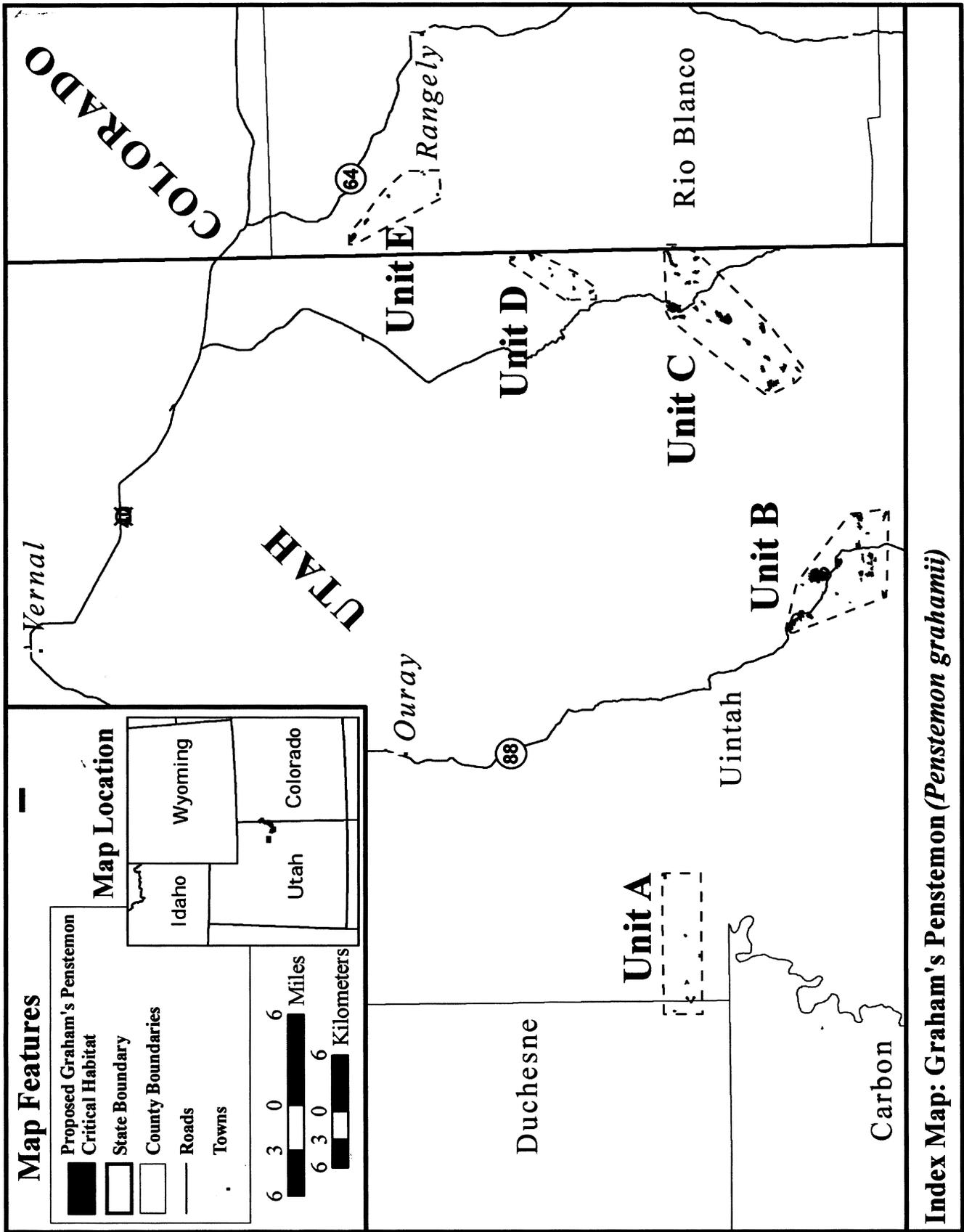
(2) Within these areas, the primary constituent element of critical habitat for *Penstemon grahamii* is: Calcareous shale knolls and slopes occupied by extant occurrences of *Penstemon grahamii* and dominated by dwarf shrubs and pulvinate plant life forms characteristic of the species plant community type.

(3) Critical habitat does not include manmade structures existing on the effective date of this rule and not containing the primary constituent

element, such as buildings, airports, roads, and the land on which such structures are located.

(4) Data layers defining map units were created with GIS technology on a base map using digital orthophoto quadrangles and National Agricultural Imagery Program imagery of the species habitat. USGS quad maps used included: Seep Ridge 1:100,000 quad with portions of Vernal and Rangely quads to cover Raven Ridge in Colorado.

(5) **Note:** Index map of approximate locations of critical habitat units for *Penstemon grahamii* (Index Map) follows:



(6) Unit A—Sand Wash Unit, Duchesne and Uintah Counties, Utah.

From U.S. Geological Survey (USGS) Duches Hole (1985), and Nutters Hole

(1985) 7.5' quadrangle maps, Salt Lake Base and Meridian (SLBM):

(i) Sub-Unit A02: Duchesne County, Utah; within T11S R17E Sec 14 SW $\frac{1}{4}$ NW $\frac{1}{4}$ , Sec 15 SE $\frac{1}{4}$ NE $\frac{1}{4}$ , NE $\frac{1}{4}$ SE $\frac{1}{4}$  (SLBM). Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 586370, 4412564; 586533, 4412573; 586533, 4412573; 586501, 4412590; 586498, 4412592; 586396, 4412592; 586363, 4412516; 586343, 4412518; 586328, 4412505; 586354, 4412458; 586362, 4412411; 586383, 4412372; 586503, 4412414; 586416, 4412597; 586396, 4412348; 586545, 4412440; 586522, 4412414; 586532, 4412510; 586487, 4412414; 586493, 4412373; 586494, 4412368; 586484, 4412349; 586490, 4412327; 586480, 4412298; 586451, 4412300.

(ii) Sub-Unit A03: Duchesne and Uintah Counties, Utah; within T11S R17E Sec 23 SW $\frac{1}{4}$ NE $\frac{1}{4}$ , SE $\frac{1}{4}$ NW $\frac{1}{4}$ , NE $\frac{1}{4}$ SW $\frac{1}{4}$ , N $\frac{1}{2}$ SE $\frac{1}{4}$ , SE $\frac{1}{4}$ SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 587316, 4410650; 587521, 4410541; 587344, 4410650; 587378, 4410611; 587423, 4410609; 587437, 4410583; 587327, 4410650; 587542, 4410531; 587602, 4410473; 587750, 4410437; 587821, 4410296; 587884, 4410372; 587282, 4410690; 587659, 4410587; 587856, 4410309; 587293, 4410770; 587294, 4410782; 587325, 4410812; 587350, 4410836; 587494, 4410849; 587517, 4410823; 587517, 4410822; 587517, 4410822; 587458, 4410810; 587473, 4410772; 587473, 4410772; 587886, 4410377; 587614, 4410670; 587783, 4410371; 587518, 4410740; 587659, 4410587; 587932, 4410419; 587967, 4410464; 587960, 4410483; 587798, 4410573; 587731, 4410442; 587729, 4410568; 587940, 4410391; 587706, 4410567.

(iii) Sub-Unit A04: Uintah County, Utah; within T11S R17E Sec 23 NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 587655, 4411035; 587772, 4411038; 587876, 4411129; 587918, 4411133; 587946, 4411168; 587945, 4411181; 587942, 4411220; 587634, 4411061; 587876, 4411220; 587723, 4411037; 587919, 4411244; 587728, 4411231; 587864, 4411267; 587855, 4411090; 587640, 4411089; 587864, 4411267; 587768, 4411235; 587721, 4411229; 587656, 4411208; 587648, 4411178; 587641, 4411150; 587656, 4411124; 587832, 4411272.

(iv) Sub-Unit A05: Uintah County, Utah; within T11S R17E Sec 24 N $\frac{1}{2}$ NE $\frac{1}{4}$ , SE $\frac{1}{4}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 589510, 4411305; 589333, 4411274; 589466, 4411216; 589432, 4411202; 589518, 4411197; 589379, 4411216; 589385, 4411273; 589274, 4411276; 589243, 4411369; 589258, 4411404; 589633, 4411244; 589548, 4411186; 589665, 4411198; 589332, 4411375; 589674, 4411187; 589647, 4411158; 589633, 4411244; 589479, 4411149; 589627, 4411122; 589537, 4411092; 589475, 4411082; 589402, 4411018; 589343, 4410988; 589343, 4411040; 589406, 4411116; 589392, 4411153; 589438, 4411174.

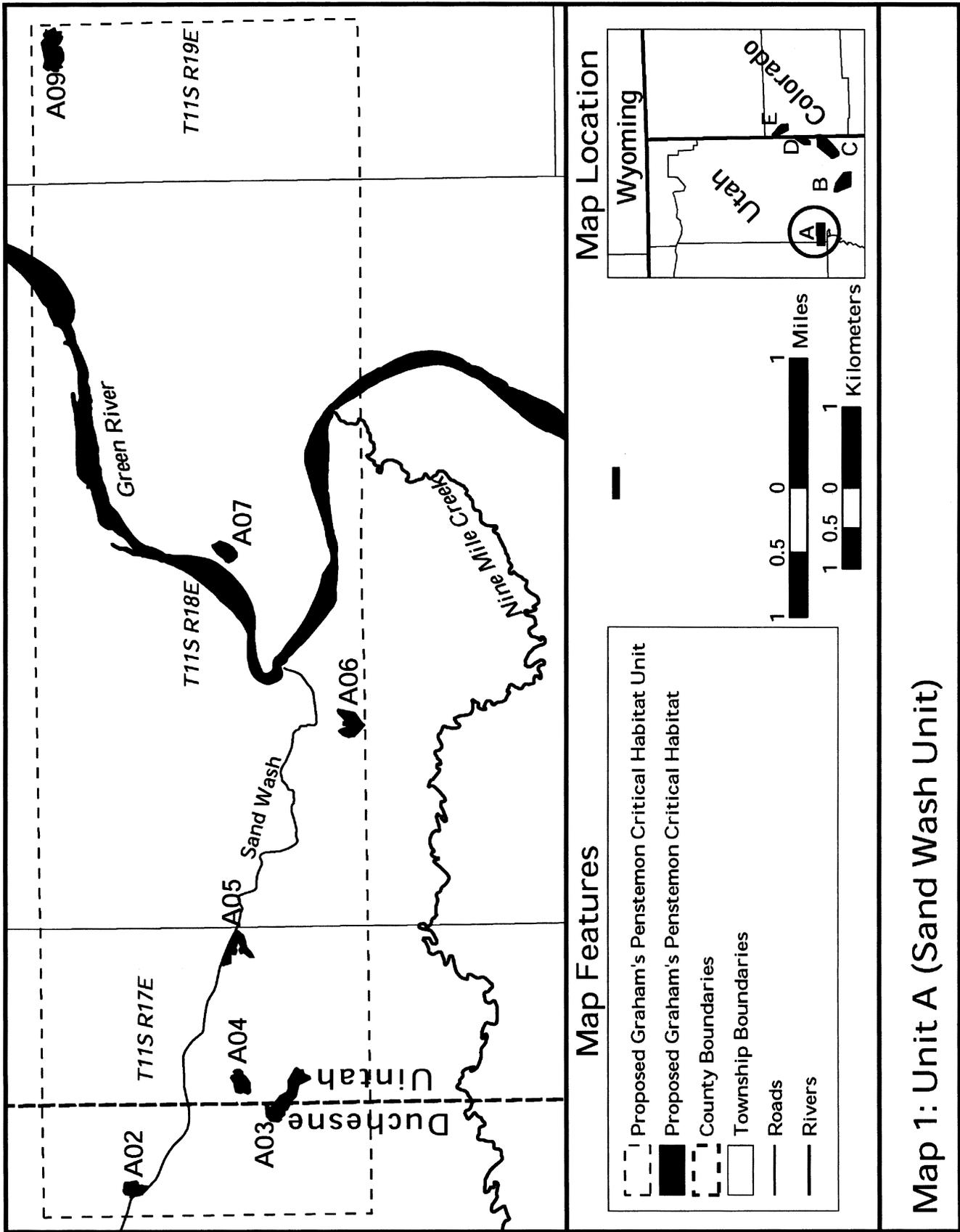
(v) Sub-Unit A06: Uintah County, Utah; within T11S R18E Sec 29 NW $\frac{1}{4}$ NE $\frac{1}{4}$ , NE $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 592234, 4409897; 592427, 4409958; 592403, 4409966; 592379, 4409958; 592273, 4409896; 592227, 4409852; 592203, 4409859; 592178, 4409931; 592163, 4409950; 592273, 4409672;

592386, 4409753; 592232, 4409627; 592157, 4409950; 592160, 4409693; 592278, 4409860; 592086, 4409761; 592080, 4409833; 592105, 4409897; 592148, 4409950; 592427, 4409958.

(vi) Sub-Unit A07: Uintah County, Utah; within T11S R18E Sec 21 SE $\frac{1}{4}$ NE $\frac{1}{4}$ , NE $\frac{1}{4}$ SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 594293, 4411360; 594246, 4411298; 594451, 4411272; 594477, 4411304; 594516, 4411410; 594477, 4411467; 594468, 4411503; 594355, 4411437; 594261, 4411337; 594277, 4411240; 594436, 4411500; 594260, 4411272; 594326, 4411193; 594260, 4411271; 594451, 4411271; 594430, 4411247; 594364, 4411197; 594451, 4411272; 594364, 4411197.

(vii) Sub-Unit A09: Uintah County, Utah; within T11S R19E Sec 17 NW $\frac{1}{4}$ NW $\frac{1}{4}$ , Sec 18 NE $\frac{1}{4}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 600553, 4413319; 600528, 4413559; 600361, 4413387; 600498, 4413324; 600657, 4413356; 600440, 4413362; 600408, 4413337; 600391, 4413391; 600355, 4413440; 600380, 4413484; 600363, 4413519; 600485, 4413550; 600713, 4413596; 600670, 4413410; 600586, 4413320; 600407, 4413570; 600780, 4413539; 600533, 4413321; 600700, 4413368; 600713, 4413596; 600787, 4413562; 600821, 4413566; 600847, 4413540; 600869, 4413545; 600876, 4413531; 600858, 4413513; 600857, 4413414; 600829, 4413430; 600855, 4413365; 600848, 4413347; 600809, 4413358; 600743, 4413346; 600899, 4413428; 600789, 4413333.

(viii) **Note:** Map of Unit A of critical habitat for *Penstemon grahamii* (Map 1) follows:



(7) Unit B—Seep Ridge Unit, Uintah County, Utah, from USGS Agency Draw

NE (1966) and Bates Knolls (1966) 7.5' quadrangle maps, SLBM:

(i) Sub-Unit B03: Uintah County, Utah; within T12S R21E Sec 25 SE<sup>1</sup>/<sub>4</sub>,

N $\frac{1}{2}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ NW $\frac{1}{4}$ , NE $\frac{1}{4}$ NE $\frac{1}{4}$ , Sec 31 NW $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 627432, 4399852; 627164, 4399979; 627214, 4399971; 627285, 4399932; 627379, 4399865; 627178, 4400038; 627448, 4399832; 627365, 4399941; 627123, 4399985; 627213, 4400070; 627163, 4400036; 627186, 4400062; 627206, 4400068; 627533, 4399869; 627155, 4400132; 627642, 4399695; 627161, 4400125; 627117, 4400028; 627668, 4399676; 626553, 4400592; 627146, 4400232; 627789, 4399621; 627764, 4399655; 627819, 4399625; 627720, 4399674; 627583, 4399711; 627683, 4399676; 627564, 4399813; 627644, 4399717; 627572, 4399746; 627566, 4399762; 627571, 4399767; 627586, 4399782; 627584, 4399805; 627570, 4399810; 627798, 4399570; 626488, 4400408; 626511, 4400563; 626636, 4400297; 626632, 4400327; 626593, 4400322; 626574, 4400350; 626482, 4400340; 626695, 4400293; 626467, 4400394; 626706, 4400264; 626480, 4400454; 626469, 4400525; 626539, 4400521; 626587, 4400611; 626636, 4400592; 627810, 4399541; 627562, 4400235; 626466, 4400353; 626881, 4400208; 627072, 4400227; 627053, 4400223; 627028, 4400184; 626972, 4400183; 626957, 4400150; 626925, 4400166; 626665, 4400273; 626849, 4400176; 627099, 4400201; 626885, 4400292; 626856, 4400217; 626804, 4400173; 626759, 4400183; 626757, 4400186; 626735, 4400214; 626694, 4400228; 626855, 4400162; 627310, 4400070; 626636, 4400592; 627290, 4400374; 627329, 4400271; 627295, 4400185; 627323, 4400159; 627328, 4400131; 627212, 4400440; 627311, 4400088; 627187, 4400441; 627310, 4400063; 627320, 4400070; 627404, 4400133; 627453, 4400230; 627495, 4400222; 627544, 4400246; 627606, 4400208; 627285, 4400083; 626928, 4400410; 627666, 4400207; 627779, 4399485; 626670, 4400481; 626725, 4400462; 626725, 4400460; 626752, 4400394; 627231, 4400386; 626895, 4400438; 627301, 4400231; 626966, 4400405; 626975, 4400372; 627006, 4400359; 627006, 4400335; 627044, 4400338; 627117, 4400370; 627155, 4400409; 626764, 4400367; 627862, 4399294; 628045, 4399637; 628111, 4399626; 628124, 4399610; 628116, 4399565; 628081, 4399517; 628035, 4399483; 627993, 4399394; 627977, 4399629; 627902, 4399309; 627635, 4399271; 627701, 4399302; 627667, 4399272; 627704, 4400152; 627581, 4399283; 627330, 4400320; 627655, 4399376; 627682, 4399439; 627981, 4399383; 627778, 4400013;

627580, 4399318; 627712, 4400093; 627966, 4399628; 627724, 4400079; 627833, 4399884; 627896, 4399826; 627879, 4399774; 627895, 4399730; 627913, 4399707; 627965, 4399703; 627954, 4399681; 627951, 4399674; 627976, 4399662; 627940, 4399726; 627977, 4399641; 627989, 4399655.

(ii) Sub-Unit B04: Uintah County, Utah; within T12S R22E Sec 30 SW $\frac{1}{4}$ SW $\frac{1}{4}$ , Sec 31 N $\frac{1}{2}$ NW $\frac{1}{4}$ , SW $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 628038, 4399200; 628037, 4399339; 627990, 4399289; 627987, 4399278; 628341, 4399769; 627983, 4399263; 628059, 4399070; 627983, 4399246; 628019, 4399095; 628039, 4399235; 628010, 4399177; 628024, 4399159; 628108, 4399368; 628060, 4399091; 628146, 4399573; 627998, 4399231; 628137, 4399619; 627996, 4399067; 628273, 4399206; 628329, 4399788; 628301, 4399782; 628167, 4399690; 628168, 4399685; 628146, 4399518; 628144, 4399649; 628119, 4399406; 628131, 4399528; 628126, 4399514; 628124, 4399476; 628082, 4399474; 628057, 4399419; 628065, 4399389; 628173, 4399663; 628338, 4399520; 628210, 4399293; 628233, 4399345; 628288, 4399323; 628322, 4399342; 628309, 4399449; 628195, 4399282; 628325, 4399488; 628332, 4399395; 628343, 4399666; 628343, 4399688; 628342, 4399688; 628341, 4399769; 627987, 4399055; 628276, 4399152; 628249, 4399460; 628065, 4398986; 627987, 4399039; 627994, 4399017; 628291, 4399460; 628040, 4398984; 628159, 4399255; 628162, 4399035; 628193, 4399067; 628220, 4399123; 628222, 4399107; 628295, 4399076; 628254, 4399185; 628262, 4399234; 628225, 4399233; 628269, 4399075; 628168, 4399225; 628196, 4399256.

(iii) Sub-Unit B05: Uintah County, Utah; within T12S R22E Sec 31 NE $\frac{1}{4}$ NW $\frac{1}{4}$ , S $\frac{1}{2}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 628482, 4399266; 628587, 4399529; 628569, 4399484; 628578, 4399465; 628517, 4399377; 628527, 4399335; 628495, 4399314; 628426, 4399152; 628500, 4399281; 628451, 4399183; 628425, 4399169; 628350, 4399269; 628576, 4399543; 628499, 4399287; 628395, 4399107; 628365, 4399285; 628483, 4399458; 628426, 4399152; 628357, 4399121; 628352, 4399139; 628337, 4399192; 628428, 4399382; 628366, 4399283; 628356, 4399314; 628371, 4399359; 628350, 4399266; 628431, 4399438.

(iv) Sub-Unit B06: Uintah County, Utah; within T12S R 22E Sec 31 E $\frac{1}{2}$ NW $\frac{1}{4}$ , NE $\frac{1}{4}$ SW $\frac{1}{4}$ . Land bounded by

the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

628568, 4399288; 628569, 4399260; 628550, 4399276; 628516, 4399233; 628525, 4399050; 628514, 4399151; 628496, 4399098; 628567, 4399292; 628678, 4399299; 628501, 4399185; 628603, 4399315; 628590, 4399350; 628619, 4399389; 628626, 4399423; 628690, 4399448; 628678, 4399361; 628690, 4399290; 628690, 4399290; 628502, 4399030; 628500, 4398956; 628709, 4399424; 628740, 4399258; 628471, 4399029; 628719, 4399268; 628732, 4399224; 628749, 4399198; 628751, 4399156; 628659, 4399076; 628649, 4399044; 628590, 4399049; 628525, 4398998; 628386, 4398896; 628470, 4398951; 628690, 4399290; 628464, 4398883; 628464, 4398882; 628446, 4398852; 628404, 4398854; 628392, 4398882; 628691, 4399263; 628426, 4398992; 628458, 4398923.

(v) Sub-Unit B07: Uintah County, Utah; within T12S R21E Sec 36 E $\frac{1}{2}$ SE $\frac{1}{4}$ , T12S R22E Sec 31 N $\frac{1}{2}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ SW $\frac{1}{4}$ , T13S R21E Sec 1 NE $\frac{1}{4}$ NE $\frac{1}{4}$ , T13S R22E Sec 6 NW $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 628182, 4398757; 628140, 4398750; 628092, 4398722; 628069, 4398679; 628315, 4398690; 627994, 4398620; 628275, 4398258; 627994, 4398620; 628363, 4398537; 628364, 4398532; 628363, 4398508; 628362, 4398479; 628280, 4398320; 628240, 4398196; 627987, 4398477; 627794, 4398230; 628357, 4398392; 628119, 4398165; 628240, 4398196; 627858, 4398324; 628136, 4398174; 627978, 4398471; 628032, 4398074; 628025, 4398069; 628004, 4398054; 627963, 4398026; 627928, 4398074; 627884, 4398087; 627807, 4398267; 627881, 4398398; 627928, 4398443; 627933, 4398067; 628175, 4398165.

(vi) Sub-Unit B08: Uintah County, Utah; within T12S R22E Sec 33 W $\frac{1}{2}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

631510, 4399210; 631417, 4399334; 631424, 4399360; 631442, 4399361; 631468, 4399335; 631472, 4399331; 631494, 4399326; 631524, 4399284; 631539, 4399220; 631376, 4399281; 631366, 4399182; 631518, 4399268; 631446, 4399079; 631298, 4399189; 631522, 4399182; 631505, 4399159; 631515, 4399132; 631484, 4399081; 631412, 4399014; 631384, 4398995; 631355, 4399002; 631297, 4399084; 631414, 4399319; 631288, 4399145; 631510, 4399210; 631497, 4399093.

(vii) Sub-Unit B09: Uintah County, Utah; within T13S R22E Sec 5 NW $\frac{1}{4}$ SE $\frac{1}{4}$ . Land bounded by the

following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
630600, 4397109; 630611, 4397116;  
630649, 4397011; 630648, 4397047;  
630659, 4397056; 630594, 4397089;  
630604, 4397006; 630643, 4397002;  
630649, 4397011; 630653, 4397093.

(viii) Sub-Unit B10: Uintah County, Utah; within T13S R22E Sec 5 NW $\frac{1}{4}$ SE $\frac{1}{4}$ , NW $\frac{1}{4}$ SE $\frac{1}{4}$ , SE $\frac{1}{4}$ NW $\frac{1}{4}$ , SW $\frac{1}{4}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
630484, 4395690; 630322, 4395682;  
630606, 4395688; 630323, 4395687;  
630327, 4395711; 630386, 4395713;  
630421, 4395701; 630474, 4395682;  
630313, 4395520; 630550, 4395740;  
630574, 4395739; 630606, 4395713;  
630606, 4395692; 630340, 4395657;  
630454, 4395689; 630486, 4395449;  
630308, 4395580; 630395, 4395634;  
630606, 4395688; 630563, 4395575;  
630459, 4395430; 630436, 4395432;  
630361, 4395594; 630564, 4395628;  
630387, 4395612; 630430, 4395466;  
630298, 4395538; 630370, 4395511;  
630385, 4395457; 630426, 4395465.

(ix) Sub-Unit B11: Uintah County, Utah; within T13S R22E Sec 4 SE $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
631618, 4397500; 631695, 4397361;  
631642, 4397416; 631643, 4397437;  
631652, 4397448; 631632, 4397450;  
631621, 4397466; 631678, 4397364;  
631629, 4397516; 631603, 4397570;  
631658, 4397666; 631679, 4397674;  
631695, 4397666; 631705, 4397651;  
631798, 4397551; 631705, 4397599;  
631769, 4397517; 631705, 4397599;  
631821, 4397475; 631695, 4397570;  
631770, 4397551; 631706, 4397383;  
631749, 4397494; 631787, 4397521;  
631787, 4397541; 631755, 4397383;  
631818, 4397542; 631782, 4397444;  
631790, 4397432; 631780, 4397398;  
631732, 4397391; 631723, 4397583.

(x) Sub-Unit B12: Uintah County, Utah; within T12S R22E Sec 33 S $\frac{1}{2}$ SE $\frac{1}{4}$ , SE $\frac{1}{4}$ SW $\frac{1}{4}$ , Sec 34 SW $\frac{1}{4}$ SW $\frac{1}{4}$ , T13S R22E Sec 3 SW $\frac{1}{4}$ , W $\frac{1}{2}$ NW $\frac{1}{4}$ , Sec 4 NE $\frac{1}{4}$ , E $\frac{1}{2}$ NW $\frac{1}{4}$ , SE $\frac{1}{4}$ , E $\frac{1}{2}$ SW $\frac{1}{4}$ , Sec 9 N $\frac{1}{2}$ NE $\frac{1}{4}$ , NW $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 632043, 4397001; 632103, 4397014; 632138, 4396977; 632079, 4396993; 632049, 4396944; 632000, 4396957; 632013, 4396995; 632010, 4396988; 632010, 4397028; 632010, 4396998; 632011, 4396954; 631927, 4397096; 631838, 4397265; 631844, 4397322; 632335, 4398421; 631848, 4397357; 631925, 4397073; 631886, 4397422; 631864, 4396706; 631889, 4397548; 631906, 4397561; 631765, 4397618; 631768, 4397723; 631904,

4397401; 632047, 4396473; 632617, 4396178; 632598, 4396272; 632614, 4396327; 632421, 4396412; 632400, 4396421; 632372, 4396501; 632343, 4396456; 632296, 4396464; 632233, 4396525; 632233, 4396526; 632213, 4396565; 631918, 4396857; 632152, 4396499; 631907, 4397118; 632017, 4396501; 632017, 4396522; 631995, 4396521; 631915, 4396594; 631927, 4396637; 631664, 4398167; 631890, 4396793; 631770, 4397766; 631881, 4396890; 631874, 4396921; 631832, 4397112; 631868, 4397135; 632175, 4396525; 632241, 4398307; 631700, 4398124; 632117, 4398215; 632142, 4398136; 632190, 4397985; 632189, 4397914; 632232, 4397872; 632223, 4398045; 632248, 4398089; 632283, 4398085; 632227, 4398138; 632194, 4398169; 632083, 4398381; 632155, 4398324; 632058, 4398427; 632256, 4398380; 632244, 4398408; 632210, 4398383; 632203, 4398444; 632250, 4398498; 632378, 4398543; 632390, 4398524; 632401, 4398506; 632390, 4398492; 632870, 4397292; 632702, 4396177; 632155, 4398229; 631882, 4398073; 631756, 4397879; 631795, 4397912; 631831, 4397905; 631825, 4397927; 631748, 4398028; 631695, 4398129; 631684, 4398282; 631720, 4398284; 631727, 4398231; 631767, 4398276; 631805, 4398273; 632076, 4398275; 631903, 4398133; 631739, 4397804; 631920, 4397970; 631984, 4397996; 631977, 4398109; 631964, 4398134; 631936, 4398191; 631865, 4398258; 631925, 4398313; 631896, 4398460; 631988, 4398512; 632018, 4398530; 632046, 4398473; 631921, 4398183; 632982, 4397886; 632759, 4397194; 632635, 4398292; 632682, 4398313; 632715, 4398307; 632747, 4398293; 632797, 4398237; 632839, 4398189; 632821, 4398170; 632839, 4398148; 632893, 4398080; 632647, 4398448; 632926, 4397885; 632615, 4398513; 632989, 4397745; 632991, 4397706; 632959, 4397654; 632971, 4397540; 632958, 4397492; 632895, 4397429; 632948, 4397398; 632887, 4397342; 632828, 4397287; 632811, 4397268; 632769, 4397221; 632952, 4397958; 632410, 4398141; 632335, 4398421; 632313, 4398328; 632371, 4398393; 632392, 4398370; 632403, 4398359; 632393, 4398320; 632378, 4398258; 632337, 4398166; 632366, 4398140; 632382, 4398126; 632652, 4398364; 632405, 4398124; 632546, 4398356; 632460, 4398309; 632487, 4398293; 632486, 4398170; 632477, 4398142; 632461, 4398090; 632816, 4396988; 632505, 4398142; 632702, 4396253; 632518, 4398414; 632521, 4398473; 632530, 4398524; 632397, 4398125; 633187, 4396727; 633005,

4396803; 633015, 4396941; 633021, 4397023; 633006, 4397095; 633098, 4397056; 633143, 4396955; 633217, 4397028; 633222, 4397032; 633260, 4397033; 633249, 4396945; 632955, 4396833; 633221, 4396787; 633037, 4397102; 633127, 4396583; 633067, 4396550; 633025, 4396575; 632998, 4396539; 632965, 4396495; 632997, 4396462; 632934, 4396403; 632827, 4396387; 632825, 4396385; 632702, 4397183; 632504, 4398141; 633231, 4396804; 632929, 4397273; 632719, 4397124; 632694, 4397066; 632647, 4397027; 632660, 4396955; 632725, 4397008; 632771, 4397168; 633117, 4396978; 632819, 4397244; 632887, 4396619; 632809, 4396973; 632761, 4396937; 632725, 4396911; 632706, 4396814; 632867, 4396593; 632888, 4396522; 632812, 4397233; 632662, 4396751; 632859, 4396537; 632888, 4396537; 632857, 4396538; 632841, 4396598; 632821, 4396585; 632794, 4396565; 632787, 4396673; 632766, 4396736; 632735, 4396791.

(xi) Sub-Unit B13: Uintah County, Utah; within T12S R22E Sec 34 SW $\frac{1}{4}$ SW $\frac{1}{4}$ , T13S R22E Sec 3 NW $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
632985, 4398111; 632876, 4398170;  
632865, 4398234; 632895, 4398245;  
632876, 4398261; 632854, 4398195;  
632882, 4398282; 632936, 4398302;  
632952, 4398297; 632974, 4398150;  
633032, 4398077; 632918, 4398166;  
632953, 4398218; 633008, 4398110;  
632903, 4398149; 632947, 4398077;  
632994, 4398097; 633038, 4398103;  
632975, 4398046; 632912, 4398077;  
632909, 4398089; 632930, 4398099;  
632932, 4398115; 632896, 4398142;  
632985, 4398111.

(xii) Sub-Unit B14: Uintah County, Utah; within T13S R22E Sec 3 W $\frac{1}{2}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
633139, 4397687; 633056, 4397986;  
633055, 4397939; 632988, 4397960;  
632987, 4397978; 633003, 4397991;  
633079, 4397957; 633120, 4397938;  
633106, 4397795; 633138, 4397747;  
633133, 4397719; 633028, 4397844;  
633142, 4397741; 633050, 4397651;  
633029, 4397931; 633003, 4397897;  
633101, 4397606; 633075, 4397631;  
633139, 4397687; 633072, 4397663;  
633020, 4397675; 633057, 4397705;  
633028, 4397733; 633034, 4397746;  
633041, 4397759; 633017, 4397788;  
633063, 4397615.

(xiii) Sub-Unit B15: Uintah County, Utah; within T13S R22E Sec 3 NW $\frac{1}{4}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

633028, 4397327; 632977, 4397265;  
632983, 4397286; 633016, 4397284;  
633034, 4397269; 633040, 4397344;  
633042, 4397347; 633063, 4397349;  
633064, 4397344; 633082, 4397276;  
633052, 4397123; 632990, 4397221;  
633176, 4397191; 632976, 4397179;  
633127, 4397219; 633152, 4397218;  
633171, 4397155; 633193, 4397126;  
633177, 4397053; 633129, 4397040;  
633099, 4397056; 633082, 4397276;  
632999, 4397147; 633117, 4397186.

(xiv) Sub-Unit B16: Uintah County, Utah; within T13S R22E Sec 10 N $\frac{1}{2}$ SW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

633223, 4395616; 633241, 4395584;  
633211, 4395520; 633222, 4395542;  
633241, 4395553; 633242, 4395557;  
633169, 4395616; 633128, 4395577;  
633119, 4395549; 633134, 4395511;  
633170, 4395500; 633211, 4395520;  
633247, 4395575.

(xv) Sub-Unit B17: Uintah County, Utah; within T13S R22E Sec 10 E $\frac{1}{2}$ SW $\frac{1}{4}$ , W $\frac{1}{2}$ SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

633708, 4395156; 633427, 4395312;  
633455, 4395340; 633473, 4395358;  
633473, 4395340; 633472, 4395296;  
633501, 4395217; 633568, 4395225;  
633625, 4395115; 633662, 4395118;  
633552, 4395643; 633703, 4395185;  
633391, 4395297; 633652, 4395117;  
633368, 4395330; 633323, 4395337;  
633312, 4395338; 633284, 4395355;  
633272, 4395394; 633323, 4395455;  
633326, 4395500; 633346, 4395518;  
633374, 4395514; 633379, 4395590;  
633422, 4395630; 633650, 4395227;  
633512, 4395640; 633571, 4395170;  
633496, 4395618; 633700, 4395619;  
633560, 4395541; 633591, 4395495;  
633596, 4395445; 633646, 4395437;  
633647, 4395437; 633532, 4395501;  
633670, 4395513; 633687, 4395481;  
633650, 4395641; 633643, 4395639;  
633591, 4395623; 633552, 4395643;  
633622, 4395249; 633547, 4395194;  
633681, 4395461; 633637, 4395381;  
633623, 4395293; 633715, 4395584;  
633544, 4395468; 633648, 4395344;  
633651, 4395351; 633648, 4395359;  
633647, 4395343; 633607, 4395391;  
633581, 4395377; 633597, 4395415;  
633566, 4395437; 633522, 4395391;  
633499, 4395430.

(xvi) Sub-Unit B18: Uintah County, Utah; within T13S R22E Sec 10 SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 633782, 4395345; 633770, 4395303; 633796, 4395399; 633751, 4395061; 633747, 4395252; 633731, 4395192; 633746, 4395174; 633735, 4395092; 633782, 4395284; 633783, 4395052; 633885, 4395166; 633915,

4395253; 633942, 4395248; 633967, 4395211; 633850, 4395084; 633879, 4395371; 633902, 4395120; 633909, 4395731; 633948, 4395235; 633831, 4395439; 633832, 4395407; 633847, 4395032; 634018, 4395719; 633983, 4395742; 633941, 4395697; 633949, 4395589; 633883, 4395528; 633903, 4395675; 633781, 4395450; 633862, 4395400; 633853, 4395472; 633907, 4395505; 633917, 4395493; 633965, 4395497; 633984, 4395452; 633963, 4395460; 633934, 4395441; 633896, 4395453; 633811, 4395531; 634087, 4395656; 634162, 4395549; 634112, 4395497; 634069, 4395499; 634037, 4395517; 634047, 4395532; 634058, 4395547; 634098, 4395539; 633894, 4395391; 634110, 4395647; 634095, 4395515; 634103, 4395702; 634086, 4395732; 634060, 4395735; 634046, 4395718; 634051, 4395694; 634044, 4395692; 634013, 4395683; 633871, 4395017; 634131, 4395612; 634150, 4395107; 633909, 4395028; 633953, 4395067; 633997, 4395075; 634020, 4395056; 634047, 4395056; 634047, 4395511; 634085, 4395095; 634178, 4395544; 634193, 4395152; 634202, 4395198; 634154, 4395404; 634055, 4395065; 634149, 4395479; 634146, 4395259; 634103, 4395359; 634104, 4395349; 634107, 4395298; 634089, 4395289; 634083, 4395259; 634018, 4395719.

(xvii) Sub-Unit B19: Uintah County, Utah; within T13S R22E Sec 17 SW $\frac{1}{4}$ NW $\frac{1}{4}$ , Sec 18 SE $\frac{1}{4}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 629480, 4394165; 629500, 4394237; 629656, 4394290; 629641, 4394303; 629629, 4394314; 629605, 4394289; 629554, 4394302; 629502, 4394262; 629475, 4394217; 629661, 4394256; 629510, 4394134; 629525, 4394289; 629642, 4394215; 629638, 4394206; 629612, 4394193; 629573, 4394203; 629656, 4394290; 629561, 4394163; 629532, 4394134.

(xviii) Sub-Unit B20: Uintah County, Utah; within T13S R22E Sec 29 NE $\frac{1}{4}$ SW $\frac{1}{4}$ , NW $\frac{1}{4}$ SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 630434, 4390761; 630542, 4390833; 630469, 4390861; 630538, 4390718; 630511, 4390641; 630509, 4390650; 630494, 4390738; 630503, 4390812; 630490, 4390855; 630520, 4390793; 630437, 4390861; 630421, 4390851; 630574, 4390832; 630762, 4390864; 630183, 4390697; 630399, 4390770; 630341, 4390849; 630316, 4390859; 630260, 4390858; 630250, 4390837; 630173, 4390826; 630136, 4390807; 630438, 4390789; 630750, 4390788; 630134, 4390784; 630467, 4390489; 630512, 4390501; 630551, 4390512;

630611, 4390646; 630773, 4390842; 630661, 4390704; 630703, 4390726; 630756, 4390866; 630687, 4390781; 630582, 4390854; 630436, 4390496; 630413, 4390531; 630365, 4390541; 630280, 4390617; 630289, 4390634; 630256, 4390640; 630206, 4390676; 630179, 4390730; 630608, 4390864; 630773, 4390842; 630706, 4390762.

(xix) Sub-Unit B21: Uintah County, Utah; within T13S R22E Sec 21 NW $\frac{1}{4}$ NE $\frac{1}{4}$ , NE $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 631869, 4392991; 631980, 4393142; 632079, 4392993; 631980, 4392972; 631834, 4392962; 631802, 4393008; 631775, 4393012; 631763, 4393030; 631805, 4392979; 631791, 4393065; 632079, 4392993; 632072, 4393115; 632077, 4393110; 632098, 4393091; 632138, 4393089; 632157, 4393058; 632149, 4393033; 632113, 4393001; 631765, 4393046.

(xx) Sub-Unit B22: Uintah County, Utah; within T13S R22E Sec 21 NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 632482, 4392984; 632484, 4392886; 632517, 4393008; 632380, 4392940; 632402, 4392935; 632433, 4392992; 632447, 4392957; 632479, 4392930; 632346, 4393026; 632476, 4392888; 632372, 4393123; 632523, 4392875; 632538, 4392884; 632543, 4392909; 632547, 4392936; 632536, 4392996; 632488, 4392977; 632467, 4392999; 632477, 4392908; 632479, 4393190; 632482, 4393003; 632503, 4393010; 632512, 4393101; 632495, 4393121; 632480, 4393123; 632469, 4393124; 632361, 4392966; 632491, 4393161; 632467, 4392999; 632470, 4393208; 632477, 4393258; 632477, 4393258; 632477, 4393258; 632463, 4393274; 632441, 4393272; 632362, 4393192; 632479, 4393141.

(xxi) Sub-Unit B23: Uintah County, Utah; within T13S R22E Sec 21 E $\frac{1}{2}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 632542, 4393087; 632539, 4393052; 632675, 4392917; 632672, 4392988; 632672, 4393210; 632533, 4393131; 632572, 4393301; 632519, 4393274; 632669, 4392912; 632560, 4393106; 632696, 4393079; 632558, 4393014; 632560, 4392925; 632573, 4392910; 632588, 4392893; 632645, 4392890; 632669, 4392912; 632506, 4393233; 632599, 4393288.

(xxii) Sub-Unit B24: Uintah County, Utah; within T13S R22E Sec 16 SE $\frac{1}{4}$ SE $\frac{1}{4}$ , Sec 21 E $\frac{1}{2}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 632688, 4393346; 632796, 4392881; 632776, 4392856; 632816, 4392865;

632870, 4393149; 632723, 4392887;  
632716, 4392913; 632695, 4392985;  
632735, 4393144; 632654, 4393297;  
632848, 4392888; 632666, 4393314;  
632755, 4393323; 632848, 4392888;  
632879, 4393072; 632846, 4393011;  
632847, 4392915; 632834, 4392868;  
632760, 4393316.

(xxiii) Sub-Unit B25: Uintah County, Utah; within T13S R22E Sec 21

N $\frac{1}{2}$ SE $\frac{1}{4}$ , S $\frac{1}{2}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

632405, 4392548; 632400, 4392504;  
632400, 4392500; 632430, 4392474;  
632387, 4392458; 632355, 4392450;  
632325, 4392462; 632266, 4392458;  
632400, 4392407; 632224, 4392412;  
632241, 4392391; 632488, 4392627;  
632265, 4392388; 632491, 4392453;  
632587, 4392501; 632437, 4392610;  
632427, 4392573; 632491, 4392453;  
632644, 4392503; 632647, 4392509;  
632656, 4392526; 632396, 4392474;  
632605, 4392546; 632599, 4392572;  
632470, 4392636.

(xxiv) Sub-Unit B26: Uintah County, Utah; within T13S R22E Sec 21

N $\frac{1}{2}$ SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

632586, 4392431; 632343, 4392199;  
632673, 4392324; 632631, 4392295;  
632658, 4392367; 632495, 4392237;  
632465, 4392225; 632409, 4392165;  
632354, 4392171; 632681, 4392347;  
632307, 4392209; 632354, 4392309;  
632375, 4392313; 632398, 4392351;  
632492, 4392399; 632618, 4392411;  
632618, 4392411; 632600, 4392360;  
632458, 4392387.

(xxv) Sub-Unit B27: Uintah County, Utah; within T13S R22E Sec 21 SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 632409, 4392101; 632772, 4392128; 632383, 4391929; 632411, 4391952; 632460, 4391960; 632499, 4391984; 632629, 4392066; 632496, 4392132; 632746, 4392108; 632274, 4391905; 632828, 4392200; 632816, 4392215; 632819, 4392239; 632805, 4392249; 632737, 4392216; 632769, 4392293; 632717, 4392085; 632426, 4392116; 632749, 4392320; 632732, 4392321; 632699, 4392280; 632684, 4392283; 632665, 4392262; 632665, 4392226; 632337, 4391924; 632643, 4392165; 632303, 4391904; 632302, 4392012; 632294, 4391992; 632261, 4391978; 632237, 4391945; 632769, 4392293; 632636, 4392218.

(xxvi) Sub-Unit B28: Uintah County, Utah; within T13S R22E Sec 21

S $\frac{1}{2}$ SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

632781, 4391887; 632320, 4391780;  
632805, 4391904; 632738, 4391888;

632712, 4391850; 632667, 4391804;  
632580, 4391783; 632554, 4391794;  
632531, 4391781; 632502, 4391782;  
632468, 4391784; 632713, 4391875;  
632379, 4391781; 632805, 4391904;  
632295, 4391811; 632349, 4391858;  
632370, 4391854; 632411, 4391870;  
632499, 4391945; 632627, 4392053;  
632704, 4392067; 632747, 4392036;  
632753, 4392016; 632792, 4392007;  
632412, 4391767.

(xxvii) Sub-Unit B29: Uintah County, Utah; within T13S R22E Sec 22

SW $\frac{1}{4}$ SW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

633005, 4392005; 633051, 4391885;  
633147, 4392075; 633166, 4392055;  
633123, 4392076; 632965, 4391932;  
632990, 4391881; 633116, 4391945;  
633210, 4391994; 633243, 4392038;  
633224, 4392047; 633164, 4392037;  
633166, 4392055; 632972, 4391898.

(xxviii) Sub-Unit B30: Uintah County, Utah; within T13S R22E Sec 22

SW $\frac{1}{4}$ SW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

633273, 4391978; 633168, 4391948;  
633142, 4391923; 633119, 4391926;  
633099, 4391898; 633114, 4391879;  
633151, 4391878; 633179, 4391880;  
633189, 4391898; 633258, 4391897;  
633258, 4391939; 633186, 4391941;  
633273, 4391978; 633241, 4391991;  
633275, 4391913.

(xxix) Sub-Unit B31: Uintah County, Utah; within T13S R22E Sec 22

S $\frac{1}{2}$ SW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

633340, 4391858; 633306, 4391865;  
633299, 4391867; 633287, 4391840;  
633297, 4391810; 633307, 4391800;  
633339, 4391795; 633319, 4391788;  
633360, 4391816; 633339, 4391795.

(xxx) Sub-Unit B32: Uintah County, Utah; within T13S R22E Sec 22

NW $\frac{1}{4}$ SE $\frac{1}{4}$ , NE $\frac{1}{4}$ SW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

633801, 4392320; 633625, 4392294;  
633645, 4392183; 633801, 4392320;  
633742, 4392261; 633827, 4392297;  
633837, 4392261; 633828, 4392222;  
633812, 4392206; 633781, 4392208;  
633770, 4392186; 633743, 4392200;  
633712, 4392197; 633636, 4392378;  
633688, 4392179; 633772, 4392381;  
633618, 4392210; 633625, 4392250;  
633653, 4392271; 633702, 4392277;  
633703, 4392277; 633702, 4392277;  
633663, 4392295; 633613, 4392313;  
633699, 4392449; 633708, 4392459;  
633739, 4392480; 633762, 4392476;  
633703, 4392190.

(xxxi) Sub-Unit B33: Uintah County, Utah; within T13S R22E Sec 22

E $\frac{1}{2}$ SW $\frac{1}{4}$ , W $\frac{1}{2}$ SE $\frac{1}{4}$ . Land bounded by

the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

633666, 4392056; 633647, 4391987;  
633617, 4391976; 633631, 4391957;  
633705, 4392099; 633728, 4392125;  
633752, 4392151; 633750, 4392175;  
633728, 4392184; 633704, 4392176;  
633691, 4392172; 633580, 4391906;  
633628, 4392123; 633582, 4392110;  
633585, 4392071; 633534, 4392021;  
633513, 4391969; 633520, 4391919;  
633608, 4391918; 633608, 4391918;  
633636, 4392126.

(xxxii) Sub-Unit B34: Uintah County, Utah; within T13S R22E Sec 22

SE $\frac{1}{4}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

633825, 4391937; 633802, 4391945;  
633713, 4391929; 633686, 4391953;  
633843, 4391951; 633761, 4392012;  
633984, 4392029; 633707, 4391970;  
633875, 4391916; 633928, 4391921;  
633957, 4391905; 634000, 4392000;  
633928, 4392023; 633891, 4392062;  
633891, 4392062; 633708, 4391933;  
633995, 4391953; 633788, 4391933.

(xxxiii) Sub-Unit B35: Uintah County, Utah; within T13S R22E Sec 22

S $\frac{1}{2}$ SE $\frac{1}{4}$ , Sec 27 NW $\frac{1}{4}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

634113, 4391805; 633919, 4391594;  
634042, 4391687; 634052, 4391728;  
634085, 4391765; 634113, 4391775;  
634074, 4391670; 634115, 4391805;  
634067, 4391685; 633981, 4391800;  
633949, 4391776; 633924, 4391735;  
633926, 4391726; 633935, 4391681;  
633907, 4391618; 634116, 4391776;  
633973, 4391516; 634011, 4391650;  
634019, 4391660; 634048, 4391639;  
634045, 4391720; 634008, 4391587;  
633943, 4391512; 633907, 4391558;  
634074, 4391670.

(xxxiv) Sub-Unit B36: Uintah County, Utah; within T13S R22E Sec 27

N $\frac{1}{2}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

634276, 4391530; 634126, 4391519;  
634247, 4391664; 634304, 4391520;  
634323, 4391557; 634305, 4391630;  
634118, 4391523; 634283, 4391654;  
634247, 4391664; 634115, 4391661;  
634112, 4391661; 634087, 4391639;  
634066, 4391588; 634091, 4391536;  
634258, 4391648.

(xxxv) Sub-Unit B37: Uintah County, Utah; within T13S R22E Sec 22

E $\frac{1}{2}$ SE $\frac{1}{4}$ , Sec 23 W $\frac{1}{2}$ SW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

634505, 4392409; 634490, 4392107;  
634482, 4392138; 634504, 4392180;  
634410, 4392173; 634365, 4392172;  
634345, 4392200; 634358, 4392227;  
634470, 4392312; 634466, 4392336;  
634554, 4392307; 634495, 4392416;

634527, 4392394; 634511, 4392097;  
634479, 4392151; 634439, 4392365;  
634259, 4391880; 634665, 4391896;  
634669, 4391868; 634655, 4391856;  
634573, 4391847; 634555, 4391880;  
634521, 4391860; 634515, 4391862;  
634494, 4391869; 634480, 4391890;  
634462, 4391855; 634420, 4391844;  
634359, 4391860; 634347, 4391900;  
634186, 4391873; 634154, 4392106;  
634183, 4391902; 634209, 4391936;  
634156, 4391921; 634145, 4391937;  
634150, 4391982; 634297, 4391846;  
634141, 4392092; 634274, 4391851;  
634203, 4392108; 634434, 4392152;  
634200, 4391866; 634636, 4392031;  
634245, 4391867; 634720, 4392010;  
634125, 4392008; 634497, 4392036;  
634684, 4391953; 634286, 4392170;  
634387, 4392157; 634432, 4392137;  
634434, 4392136; 634236, 4392134;  
634491, 4392078; 634270, 4392081;  
634511, 4392057; 634585, 4392272;  
634515, 4392062; 634554, 4392307;  
634548, 4392065; 634573, 4392046;  
634451, 4392106; 634806, 4392233;  
634232, 4392087; 634759, 4392140;  
634761, 4392143; 634771, 4392157;  
634864, 4392186; 634234, 4392136;  
634841, 4392227; 634719, 4391968;  
634752, 4392277; 634728, 4392256;  
634729, 4392223; 634708, 4392238;  
634680, 4392236; 634633, 4392273;  
634872, 4392202.

(xxxvi) Sub-Unit B38: Uintah County, Utah; within T13S R22E Sec 22 NE $\frac{1}{4}$ , Sec 23 W $\frac{1}{2}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

634546, 4392866; 634608, 4393016;  
633890, 4392743; 634690, 4393002;  
634095, 4392827; 634220, 4392817;  
634394, 4392866; 633814, 4392758;  
634507, 4392853; 633875, 4392758;  
634586, 4392856; 634587, 4392822;  
634649, 4392804; 634689, 4392926;  
634689, 4392946; 634690, 4393002;  
634497, 4392854; 634108, 4392980;  
634495, 4392954; 634493, 4392953;  
634440, 4392952; 634302, 4392988;  
634093, 4392827; 634140, 4392997;  
633818, 4392772; 634108, 4392948;  
634093, 4392946; 634049, 4392939;  
634044, 4392935; 633898, 4392834;  
633880, 4392828; 633857, 4392851;  
633801, 4392839; 633775, 4392809;  
634218, 4392980.

(xxxvii) Sub-Unit B39: Uintah County, Utah; within T13S R22E Sec 14 S $\frac{1}{2}$ SE $\frac{1}{4}$ , SE $\frac{1}{4}$ SW $\frac{1}{4}$ , Sec 23 N $\frac{1}{2}$ NE $\frac{1}{4}$ , NE $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

635255, 4393625; 635211, 4393411;  
635324, 4393518; 635289, 4393560;  
635279, 4393571; 635604, 4393479;  
636080, 4393296; 635900, 4393329;  
635828, 4393369; 635808, 4393380;  
635770, 4393432; 635796, 4393620;

635763, 4393648; 635734, 4393631;  
635716, 4393643; 635692, 4393633;  
636098, 4393258; 635658, 4393410;  
635453, 4393627; 635633, 4393582;  
635632, 4393618; 635608, 4393649;  
635557, 4393593; 635493, 4393430;  
635530, 4393589; 635489, 4393625;  
635380, 4393508; 635269, 4393661;  
635215, 4393475; 635690, 4393619;  
635253, 4393342; 636098, 4393255;  
635324, 4393518; 635206, 4393661;  
635237, 4393691; 635189, 4393594;  
635209, 4393518; 635247, 4393479;  
635207, 4393444; 635251, 4393358;  
635282, 4393327; 635293, 4393299;  
635682, 4393232; 636073, 4393236;  
635884, 4393250; 635246, 4393385;  
635697, 4393232; 635299, 4393285;  
635693, 4393202; 635619, 4393138;  
635259, 4393691; 635524, 4393145;  
635446, 4393226; 635373, 4393217;  
635799, 4393229.

(xxxviii) Sub-Unit B40: Uintah County, Utah; within T13S R22E Sec 24 NE $\frac{1}{4}$ SW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
636852, 4392582; 636900, 4392500;  
636858, 4392230; 636894, 4392236;  
636916, 4392446; 636864, 4392548;  
636864, 4392570; 636753, 4392546;  
636766, 4392502; 636775, 4392293;  
636818, 4392215; 636851, 4392204;  
636858, 4392230; 636777, 4392581;  
636917, 4392264.

(xxxix) Sub-Unit B41: Uintah County, Utah; within T13S R22E Sec 24 N $\frac{1}{2}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
637394, 4393237; 637260, 4393188;  
637288, 4393200; 637260, 4393206;  
637212, 4393206; 637318, 4393256;  
637304, 4393210; 637306, 4393252;  
637394, 4393237; 637229, 4393134;  
637303, 4393137; 637308, 4393136;  
637379, 4393123; 637398, 4393133;  
637425, 4393181; 637251, 4393236;  
637186, 4393182.

(xl) Sub-Unit B42: Uintah County, Utah; within T13S R22E Sec 24 E $\frac{1}{2}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
637592, 4392998; 637612, 4393054;  
637602, 4393089; 637468, 4393130;  
637528, 4393110; 637389, 4392995;  
637574, 4393113; 637588, 4392989;  
637524, 4392953; 637393, 4392976;  
637377, 4393051; 637400, 4393088;  
637468, 4393130; 637482, 4392975.

(xli) Sub-Unit B43: Uintah County, Utah; within T13S R22E Sec SE $\frac{1}{4}$ SE $\frac{1}{4}$ , NE $\frac{1}{4}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
637471, 4393401; 637537, 4393221;  
637485, 4393394; 637537, 4393221;  
637513, 4393217; 637462, 4393238;

637415, 4393331; 637434, 4393391;  
637463, 4393399; 637475, 4393399;  
637532, 4393288.

(xlii) Sub-Unit B44: Uintah County, Utah; within T13S R22E Sec 13 SE $\frac{1}{4}$ SE $\frac{1}{4}$ , Sec 24 NE $\frac{1}{4}$ NE $\frac{1}{4}$ , T13S R23E Sec 19 NW $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
637718, 4393281; 637668, 4393259;  
637697, 4393297; 637708, 4393289;  
637618, 4393401; 637711, 4393149;  
637722, 4393229; 637618, 4393401;  
637739, 4393149; 637617, 4393405;  
637690, 4393149; 637612, 4393192;  
637573, 4393246; 637508, 4393348;  
637490, 4393386; 637490, 4393399;  
637583, 4393451; 637490, 4393419;  
637505, 4393437; 637527, 4393344;  
637747, 4393176.

(xliii) Sub-Unit B45: Uintah County, Utah; T13S R23E Sec 18 SW $\frac{1}{4}$ SW $\frac{1}{4}$ , Sec 19 NW $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
637919, 4393440; 637804, 4393234;  
637816, 4393306; 637801, 4393367;  
637817, 4393405; 637824, 4393421;  
637893, 4393450; 637921, 4393407;  
637874, 4393214; 637847, 4393437;  
637930, 4393407; 637826, 4393204;  
637814, 4393209; 637922, 4393390;  
637938, 4393422; 637958, 4393420;  
637965, 4393408; 637979, 4393383;  
637981, 4393337; 637899, 4393228;  
637921, 4393407.

(xliv) Sub-Unit B46: Uintah County, Utah; T13S R23E Sec 18 W $\frac{1}{2}$ SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
638789, 4393993; 638550, 4393822;  
638628, 4393721; 638657, 4393746;  
638571, 4393748; 638544, 4393801;  
638559, 4393854; 638592, 4393890;  
638727, 4393974; 638617, 4393692;  
638793, 4393965; 638768, 4393739;  
638811, 4394017; 638850, 4394011;  
638703, 4393960; 638632, 4393661;  
638674, 4393651; 638717, 4393721;  
638730, 4393771; 638758, 4393727;  
638778, 4393792; 638800, 4393824;  
638799, 4393827; 638794, 4393845;  
638769, 4393854; 638802, 4393877;  
638827, 4393916; 638850, 4393975;  
638850, 4393975; 638741, 4393734;  
638699, 4393929.

(xlv) Sub-Unit B47: Uintah County, Utah; within T13S R23E Sec 18 SE $\frac{1}{4}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ SE $\frac{1}{4}$ , Sec 19 E $\frac{1}{2}$ NW $\frac{1}{4}$ , W $\frac{1}{2}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
638476, 4393485; 638466, 4393293;  
638466, 4393302; 638479, 4393308;  
638523, 4393327; 638540, 4393378;  
638509, 4393387; 638541, 4393417;  
638542, 4393419; 638576, 4393481;  
638571, 4393542; 638145, 4393352;

638505, 4393525; 638499, 4393259;  
 638468, 4393474; 638465, 4393496;  
 638448, 4393505; 638797, 4393128;  
 638370, 4393447; 638381, 4393411;  
 638329, 4393323; 638281, 4393280;  
 638257, 4393286; 638190, 4393371;  
 638543, 4393543; 638857, 4393751;  
 638785, 4393320; 638783, 4393229;  
 638808, 4393147; 638785, 4393320;  
 638827, 4393424; 638837, 4393449;  
 638831, 4393496; 638877, 4393539;  
 638874, 4393676; 638860, 4393683;  
 638480, 4393294; 638873, 4393740;  
 638490, 4393296; 638837, 4393747;  
 638815, 4393723; 638734, 4393560;  
 638677, 4393554; 638669, 4393520;  
 638589, 4393444; 638582, 4393419;  
 638555, 4393333; 638520, 4393303;  
 638379, 4393416; 638874, 4393713;  
 638803, 4392963; 638486, 4392976;  
 638478, 4392960; 638487, 4392942;  
 638490, 4392937; 638587, 4392923;  
 638118, 4393303; 638601, 4393017;  
 638400, 4393483; 638619, 4393068;  
 638656, 4393018; 638507, 4393015;  
 638742, 4392957; 638617, 4392940;  
 638819, 4392979; 638814, 4392994;  
 638839, 4392979; 638879, 4392976;  
 638884, 4393002; 638874, 4393022;  
 638868, 4393036; 638844, 4393046;  
 638838, 4393071; 638752, 4393083;  
 638741, 4393097; 638660, 4393013;  
 638258, 4393171; 638134, 4393235;  
 638173, 4393183; 638227, 4393142;  
 638590, 4393071; 638246, 4393149;  
 638514, 4393031; 638291, 4393136;  
 638301, 4393106; 638288, 4393044;

638296, 4393011; 638310, 4392956;  
 638372, 4392895; 638467, 4393165;  
 638495, 4393079; 638408, 4392901;  
 638483, 4393146; 638418, 4393165;  
 638390, 4393151; 638362, 4393108;  
 638384, 4393037; 638405, 4393014;  
 638419, 4392999; 638425, 4392921;  
 638495, 4393131.

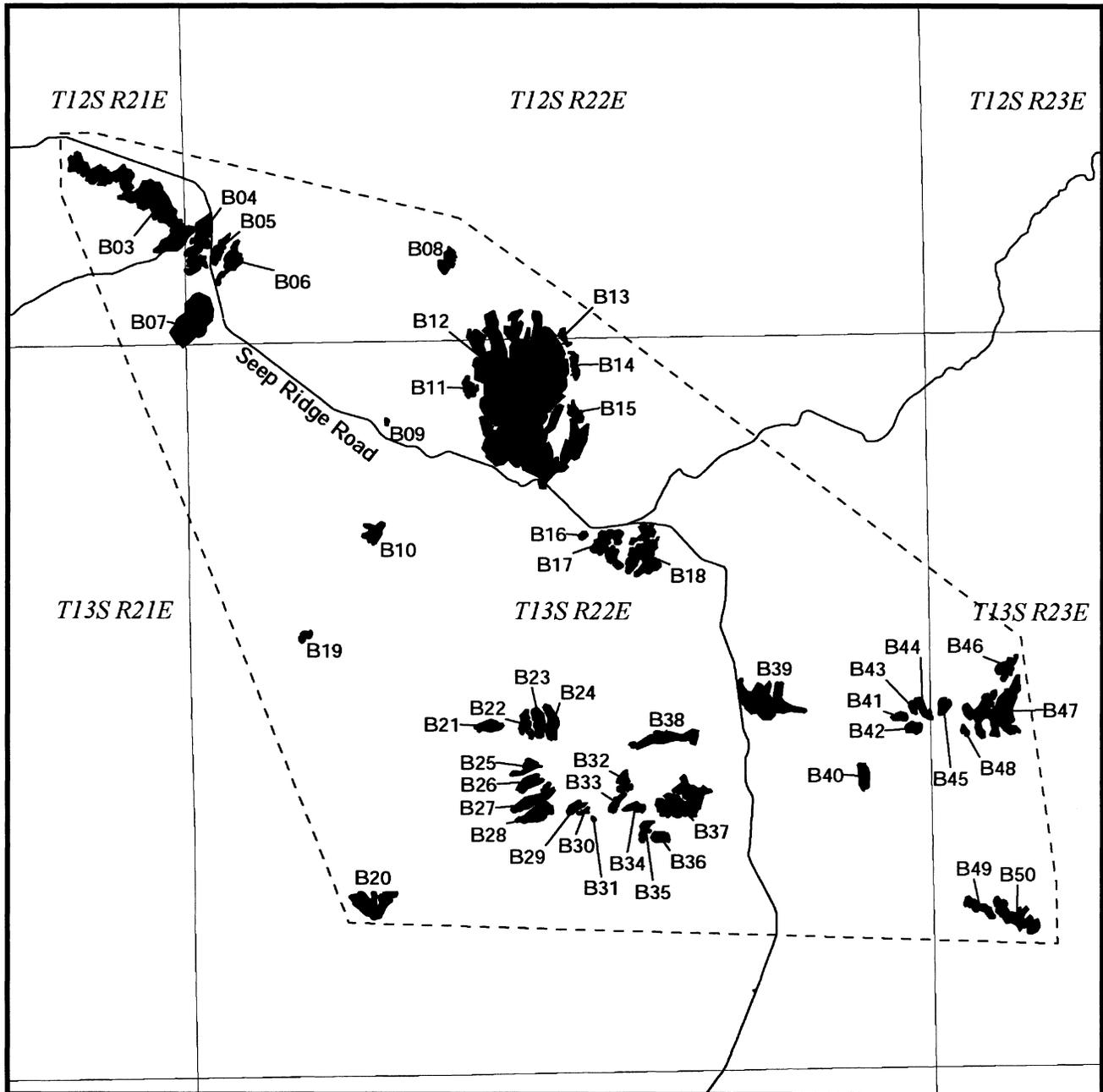
(xlvi) Sub-Unit B48: Uintah County, Utah; within T13S R23E Sec 19 E $\frac{1}{2}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 638206, 4393010; 638118, 4392965; 638194, 4392930; 638174, 4392924; 638151, 4392941; 638148, 4392970; 638132, 4392962; 638096, 4393004; 638097, 4393008; 638116, 4393059; 638115, 4393076; 638218, 4392995; 638140, 4393091; 638218, 4392995; 638126, 4393089; 638220, 4392963.

(xlvii) Sub-Unit B49: Uintah County, Utah; within T13S R23E Sec 30 E $\frac{1}{2}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 638158, 4390680; 638535, 4390524; 638478, 4390525; 638423, 4390598; 638412, 4390613; 638338, 4390637; 638322, 4390617; 638295, 4390616; 638537, 4390524; 638219, 4390667; 638242, 4390678; 638135, 4390712; 638167, 4390812; 638216, 4390831; 638253, 4390791; 638290, 4390783; 638346, 4390724; 638432, 4390721; 638263, 4390634; 638466, 4390686; 638565, 4390543; 638190, 4390687; 638432, 4390721; 638507, 4390676;

638506, 4390647; 638529, 4390600;  
 638532, 4390595; 638533, 4390594;  
 638563, 4390570.

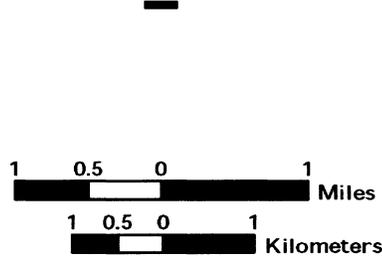
(xlvi) Sub-Unit B50: Uintah County, Utah; within T13S R23E Sec 30 SE $\frac{1}{4}$ , NE $\frac{1}{4}$ SW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 638593, 4390823; 639047, 4390336; 638939, 4390407; 638967, 4390411; 638970, 4390345; 638988, 4390332; 638907, 4390403; 639110, 4390362; 639143, 4390425; 638871, 4390362; 639114, 4390534; 638549, 4390812; 639055, 4390513; 639040, 4390553; 639007, 4390580; 639133, 4390495; 638544, 4390685; 638610, 4390573; 638957, 4390607; 638573, 4390601; 638964, 4390533; 638556, 4390614; 638640, 4390547; 638625, 4390696; 638831, 4390442; 638531, 4390735; 638524, 4390760; 638530, 4390772; 638613, 4390554; 638693, 4390468; 638762, 4390478; 638562, 4390668; 638699, 4390766; 638936, 4390577; 638593, 4390823; 638670, 4390781; 638937, 4390526; 638720, 4390727; 638707, 4390673; 638736, 4390633; 638721, 4390605; 638767, 4390620; 638938, 4390587; 638874, 4390690; 638889, 4390683; 638893, 4390634; 638934, 4390674; 638960, 4390699; 638995, 4390650; 638925, 4390523; 638629, 4390775; 638824, 4390610.

(xlix) Note: Map of Unit B of critical habitat for *Penstemon grahamii* (Map 2) follows:

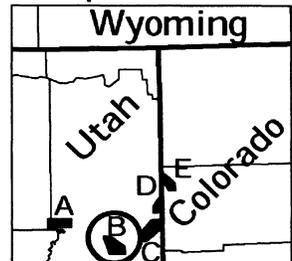


**Map Features**

- Proposed Graham's Penstemon Critical Habitat Unit
- Proposed Graham's Penstemon Critical Habitat
- Township Boundaries
- Roads



**Map Location**



**Map 2: Unit B (Seep Ridge Unit)**

(8) Unit C—Evacuation Creek Unit, Uintah County, Utah, and Rio Blanco

County, Colorado, from USGS Burnt Timber Canyon (1987), Rainbow (1987),

and Dragon (1987) 7.5' quadrangle

maps, SLBM and Sixth Principal Meridian (6PM):

(i) Sub-Unit C01: Uintah County, Utah; within T12S R24E Sec 35 N $\frac{1}{2}$ SW $\frac{1}{4}$ , S $\frac{1}{2}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

654125, 4399517; 654126, 4399518; 654068, 4399514; 654259, 4399664; 653806, 4399331; 654242, 4399619; 654062, 4399486; 653998, 4399413; 653962, 4399371; 653896, 4399321; 653809, 4399361; 653887, 4399390; 654313, 4399656; 653925, 4399362; 653864, 4399416; 653993, 4399685; 654078, 4399752; 654152, 4399736; 654308, 4399902; 654339, 4399910; 654017, 4399715; 654377, 4399887; 654377, 4399689; 653874, 4399534; 653881, 4399512; 653888, 4399487; 654362, 4399840; 654394, 4399734; 654394, 4399724; 654362, 4399840.

(ii) Sub-Unit C02: Uintah County, Utah; within T12S R24E Sec 26 NE $\frac{1}{4}$ SW $\frac{1}{4}$ , MW $\frac{1}{4}$ SE $\frac{1}{4}$ , SW $\frac{1}{4}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 654372, 4400841; 654645, 4401032; 654670, 4401104; 654626, 4400971; 654609, 4401083; 654197, 4400906; 654680, 4401137; 654682, 4401142; 654637, 4401173; 654596, 4401135; 654593, 4401132; 654550, 4401134; 654467, 4401138; 654441, 4401131; 654392, 4401119; 654401, 4400877; 654151, 4400945; 654451, 4400780; 654237, 4400886; 654268, 4400858; 654337, 4400838; 654609, 4400818; 654384, 4400842; 654680, 4401137; 654448, 4400887; 654472, 4400926; 654489, 4400911; 654416, 4400847; 654367, 4401100; 654420, 4400805.

(iii) Sub-Unit C03: Uintah County, Utah; within T12S R24E Sec 26 NE $\frac{1}{4}$ NW $\frac{1}{4}$ , S $\frac{1}{2}$ NW $\frac{1}{4}$ , E $\frac{1}{2}$ SW $\frac{1}{4}$ , NW $\frac{1}{4}$ SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

654366, 4401119; 653878, 4401074; 653962, 4401239; 653877, 4401051; 653969, 4400995; 654114, 4401083; 654080, 4400998; 654138, 4400958; 654179, 4400968; 654213, 4400995; 654247, 4401065; 654359, 4401460; 654323, 4401108; 653967, 4400997; 654391, 4401125; 654395, 4401130; 654410, 4401155; 654427, 4401239; 654400, 4401265; 654410, 4401279; 654398, 4401366; 654382, 4401377; 654366, 4401364; 654282, 4401060; 654162, 4401398; 653984, 4401255; 654017, 4401254; 654002, 4401281; 654011, 4401300; 654041, 4401300; 654040, 4401334; 654046, 4401021; 654131, 4401361; 653839, 4401117; 654195, 4401403; 654214, 4401401; 654231, 4401408; 654252, 4401398; 653822, 4401156; 654090, 4401376;

653828, 4401128; 654262, 4401497; 653835, 4401196; 653934, 4401219; 654359, 4401460; 654353, 4401531; 654352, 4401546; 654328, 4401562; 654298, 4401558; 654280, 4401529.

(iv) Sub-Unit C04: Uintah County, Utah; within T12S R24E Sec 34 N $\frac{1}{2}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 652900, 4400180; 652986, 4399979; 652968, 4399983; 652944, 4400026; 652951, 4400081; 652924, 4400105; 652873, 4400115; 652994, 4400176; 652869, 4400196; 653024, 4399985; 653176, 4400079; 652836, 4400175; 653181, 4400158; 652994, 4400176; 653119, 4400179; 653196, 4400152; 653230, 4400172; 653258, 4400141; 653241, 4400101; 653183, 4400081; 653090, 4400031; 653157, 4400053; 653046, 4400130.

(v) Sub-Unit C05: Uintah County, Utah; within T12S R24E Sec 22 SW $\frac{1}{4}$ SE $\frac{1}{4}$ , Sec 27 NE $\frac{1}{4}$ NW $\frac{1}{4}$ , NW $\frac{1}{4}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 653005, 4401708; 652747, 4401687; 652606, 4401678; 652601, 4401640; 652665, 4401602; 652686, 4401600; 652701, 4401613; 652748, 4401690; 652798, 4401693; 652821, 4401709; 652586, 4401756; 652968, 4401690; 652567, 4401783; 652968, 4401749; 652991, 4401776; 652969, 4401900; 652868, 4401684; 652849, 4401952; 652581, 4401694; 652945, 4401928; 652580, 4401806; 652817, 4401949; 652793, 4401922; 652743, 4401919; 652753, 4401895; 652759, 4401881; 652969, 4401900; 652668, 4401869; 652654, 4401848; 652659, 4401822; 652712, 4401809; 652648, 4401796; 652609, 4401815; 652968, 4401900; 652742, 4401878.

(vi) Sub-Unit C06: Uintah County, Utah; within T12S R24E Sec 22 NE $\frac{1}{4}$ SW $\frac{1}{4}$ , S $\frac{1}{2}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ SE $\frac{1}{4}$ , Sec 27 NE $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 652611, 4402301; 652626, 4402294; 652627, 4402294; 652528, 4402327; 652645, 4402149; 652416, 4402328; 652674, 4402197; 652452, 4402311; 652416, 4402328; 652350, 4402288; 652377, 4402303; 652393, 4401942; 652594, 4402156; 652355, 4402306; 652370, 4402133; 652443, 4401828; 652400, 4401838; 652561, 4402237; 652424, 4401951; 652399, 4401887; 652339, 4401997; 652337, 4402020; 652335, 4402058; 652337, 4402059; 652359, 4402083; 652462, 4401835; 652384, 4402119; 652389, 4401863; 652335, 4402131; 652288, 4402127; 652279, 4402150; 652292, 4402183; 652326, 4402187; 652333, 4402217;

652338, 4402235; 652388, 4402239; 652345, 4402274; 652391, 4402250; 652363, 4402098; 652909, 4402141; 652537, 4402244; 652568, 4402182; 652554, 4402114; 652612, 4402083; 652661, 4402119; 652721, 4402106; 652738, 4402092; 652855, 4402156; 652466, 4401861; 652812, 4401986; 652740, 4401972; 652705, 4401965; 652578, 4401883; 652757, 4402075; 652554, 4401855; 652698, 4401940; 652577, 4401891; 652574, 4401914; 652605, 4401923; 652601, 4401949; 652624, 4401953; 652618, 4401909; 652641, 4401898; 652534, 4401867.

(vii) Sub-Unit C07: Uintah County, Utah; within T12S R24E Sec 21 NE $\frac{1}{4}$ SE $\frac{1}{4}$ , SE $\frac{1}{4}$ NE $\frac{1}{4}$ , Sec 22 N $\frac{1}{2}$ SW $\frac{1}{4}$ , NW $\frac{1}{4}$ SE $\frac{1}{4}$ , S $\frac{1}{2}$ NW $\frac{1}{4}$ , SW $\frac{1}{4}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 652245, 4402444; 651891, 4402949; 651976, 4402952; 651934, 4402988; 651918, 4403028; 651914, 4403029; 651858, 4403043; 651834, 4403031; 651831, 4402989; 651863, 4402945; 652741, 4402774; 652577, 4402688; 652728, 4402540; 652774, 4402569; 652801, 4402634; 652800, 4402700; 652697, 4402500; 652764, 4402800; 652656, 4402477; 652722, 4402782; 652716, 4402784; 652680, 4402767; 652657, 4402792; 652628, 4402780; 652451, 4402371; 652797, 4402790; 652504, 4402499; 652192, 4402388; 652474, 4402404; 652499, 4402434; 652478, 4402464; 652478, 4402555; 652699, 4402522; 652486, 4402504; 652560, 4402694; 652515, 4402524; 652524, 4402515; 652515, 4402448; 652533, 4402416; 652617, 4402484; 652636, 4402488; 652493, 4402558; 652054, 4402683; 652581, 4402695; 652177, 4402673; 652089, 4402552; 652052, 4402541; 652065, 4402586; 652211, 4402644; 652058, 4402676; 652188, 4402615; 652046, 4402699; 652070, 4402738; 652097, 4402749; 652109, 4402806; 652025, 4402853; 651976, 4402952; 652046, 4402637; 652326, 4402689; 652548, 4402700; 652484, 4402693; 652483, 4402693; 652481, 4402720; 652203, 4402677; 652340, 4402706; 652411, 4402385; 652323, 4402685; 652288, 4402643; 652232, 4402533; 652198, 4402529; 652189, 4402567; 652202, 4402609; 652461, 4402736; 652478, 4402387; 652043, 4402443; 651970, 4402511; 651936, 4402516; 651925, 4402526; 651895, 4402552; 651879, 4402597; 651837, 4402593; 651829, 4402617; 652082, 4402451; 651879, 4402654; 651849, 4402646; 651898, 4402682; 651846, 4402715; 651850, 4402738; 651885, 4402755; 651860, 4402771; 651859, 4402795; 651898, 4402820; 651879, 4402826;

651877, 4402863; 651902, 4402877; 652411, 4402418; 651897, 4402680; 652157, 4402346; 652078, 4402428; 652185, 4402327; 652242, 4402347; 652278, 4402328; 652322, 4402348; 652330, 4402348; 652383, 4402417; 652162, 4402361; 652273, 4402494; 652099, 4402403; 652150, 4402411; 652157, 4402393; 652364, 4402345; 652274, 4402448; 652239, 4402393; 652287, 4402503; 652286, 4402463; 652304, 4402435; 652271, 4402431; 652235, 4402408.

(viii) Sub-Unit C08: Uintah County, Utah; within T12S R24E Sec 22 NE $\frac{1}{4}$ SW $\frac{1}{4}$ , NW $\frac{1}{4}$ SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 652916, 4402452; 652705, 4402459; 652980, 4402586; 652978, 4402510; 652956, 4402446; 652710, 4402507; 652980, 4402586; 652963, 4402598; 652843, 4402560; 652800, 4402569; 652730, 4402408; 652728, 4402516; 652916, 4402475; 652692, 4402473; 652709, 4402419; 652753, 4402397; 652778, 4402412; 652803, 4402485; 652881, 4402488; 652788, 4402545.

(ix) Sub-Unit C09: Uintah County, Utah; within T12S R24E Sec 22 E $\frac{1}{2}$ SW $\frac{1}{4}$ , W $\frac{1}{2}$ SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 652492, 4402342; 652855, 4402299; 652486, 4402357; 653001, 4402366; 652579, 4402326; 652658, 4402295; 652733, 4402295; 652755, 4402297; 652780, 4402300; 653001, 4402366; 652815, 4402287; 652618, 4402309; 652878, 4402307; 652907, 4402301; 652914, 4402299; 652914, 4402301; 652929, 4402353; 652975, 4402344; 652510, 4402389; 652786, 4402298; 652808, 4402461; 652997, 4402393; 652974, 4402422; 652930, 4402427; 652678, 4402288; 652829, 4402477; 652538, 4402380; 652818, 4402442; 652786, 4402422; 652779, 4402370; 652745, 4402365; 652569, 4402396; 652728, 4402402; 652688, 4402411; 652685, 4402440; 652637, 4402438; 652626, 4402423; 652574, 4402430; 652731, 4402396; 652868, 4402472.

(x) Sub-Unit C10: Uintah County, Utah; within T12S R24E Sec 23 NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 653923, 4403405; 653984, 4403405; 654000, 4403346; 653973, 4403240; 653963, 4403152; 653982, 4403128; 653987, 4403121; 653967, 4403087; 653985, 4403064; 653834, 4403272; 653914, 4403387; 653987, 4403082; 653845, 4403125; 653858, 4403317; 653902, 4403365; 653911, 4403046; 653952, 4403043; 653841, 4403130; 653825, 4403206; 653880, 4403284; 653985, 4403064; 653868, 4403352; 653921, 4403045.

(xi) Sub-Unit C11: Uintah County, Utah; within T12S R24E Sec 23 E $\frac{1}{2}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 653994, 4403223; 654013, 4403376; 654041, 4403276; 654017, 4403287; 654006, 4403319; 654051, 4403380; 654094, 4403424; 654122, 4403484; 654223, 4403407; 654083, 4403079; 654270, 4403368; 654204, 4403461; 654251, 4403176; 654019, 4403129; 654270, 4403368; 653990, 4403187; 654215, 4403168; 654207, 4403182; 654182, 4403165; 654172, 4403133; 654168, 4403133; 654115, 4403121; 654103, 4403086; 654034, 4403098.

(xii) Sub-Unit C12: Uintah County, Utah; within T12S R24E Sec 23 NE $\frac{1}{4}$ NW $\frac{1}{4}$ , NW $\frac{1}{4}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 654298, 4403269; 654423, 4403522; 654399, 4403516; 654362, 4403432; 654315, 4403444; 654279, 4403428; 654306, 4403341; 654292, 4403476; 654528, 4403420; 654329, 4403424; 654320, 4403227; 654469, 4403473; 654532, 4403309; 654423, 4403522; 654413, 4403224; 654361, 4403201; 654330, 4403206; 654433, 4403456.

(xiii) Sub-Unit C13: Uintah County, Utah; within T12S R24E Sec 23 NE $\frac{1}{4}$ SE $\frac{1}{4}$ , Sec 24 NW $\frac{1}{4}$ NW $\frac{1}{4}$ , NW $\frac{1}{4}$ SW $\frac{1}{4}$ , S $\frac{1}{2}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 655449, 4402892; 655078, 4402751; 655247, 4402874; 655283, 4403012; 655266, 4402988; 655297, 4402881; 655229, 4402837; 655191, 4402848; 655134, 4402799; 655079, 4402752; 655333, 4403091; 655079, 4402689; 655134, 4402753; 655376, 4403112; 655529, 4403171; 655461, 4403211; 655429, 4403169; 655413, 4403180; 655383, 4403168; 655418, 4403063; 655366, 4403144; 655302, 4403011; 655345, 4403107; 655389, 4402911; 655354, 4403072; 655065, 4402649; 655416, 4403048; 655264, 4403082; 655378, 4403161; 655497, 4403088; 655372, 4402940; 655077, 4402603; 655529, 4403171; 655529, 4403165; 655535, 4403165; 655536, 4403144; 655489, 4403102; 655527, 4403068; 655531, 4403070; 655582, 4403086; 655620, 4403053; 655614, 4403007; 655553, 4402944; 655564, 4402912; 655252, 4402557; 655033, 4402603; 655529, 4403138; 655537, 4402885; 655016, 4402495; 655140, 4402514; 654990, 4402515; 655291, 4402545; 655346, 4402639; 655399, 4402668; 655499, 4402763; 655503, 4402766; 655537, 4402766; 655541, 4402766; 655086, 4402493.

(xiv) Sub-Unit C14: Uintah County, Utah; within T12S R24E Sec 13

SE $\frac{1}{4}$ NE $\frac{1}{4}$ , T12S R25E Sec 7 SE $\frac{1}{4}$ SW $\frac{1}{4}$ , Sec 18 NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 657023, 4405068; 656971, 4405031; 656957, 4404881; 656964, 4405015; 656978, 4405006; 657056, 4405015; 657039, 4404976; 657002, 4404966; 656881, 4404928; 656761, 4404913; 656817, 4404934; 657379, 4405241; 656734, 4404846; 656732, 4404825; 657057, 4405064; 657381, 4405314; 656767, 4404868; 657208, 4405165; 656701, 4404822; 657396, 4405268; 657309, 4405345; 657227, 4405255; 657210, 4405221; 657244, 4405223; 657229, 4405297; 657217, 4405199; 657059, 4405083; 657192, 4405168; 657167, 4405150; 657201, 4405120; 657134, 4405037; 657119, 4405038; 657098, 4405078; 657095, 4405079; 657222, 4405203; 657271, 4404991; 657134, 4404769; 657173, 4404795; 657177, 4404801; 657197, 4404839; 657222, 4404838; 657243, 4404903; 657102, 4404780; 657274, 4404939; 657300, 4404995; 657322, 4405024; 657355, 4405202; 657381, 4405203; 657380, 4405205; 657379, 4405241; 656701, 4404796; 656839, 4404920; 657229, 4404924; 656706, 4404585; 656697, 4404795; 657345, 4405079; 657094, 4404782; 656697, 4404796; 656647, 4404786; 656637, 4404736; 656662, 4404630; 656756, 4404535; 656822, 4404580; 657081, 4404656; 657102, 4404766; 657119, 4404733; 657103, 4404701; 656852, 4404545; 657047, 4404676; 657052, 4404627; 657027, 4404580; 656929, 4404541.

(xv) Sub-Unit C15: Uintah County, Utah; within T12S R25E Sec 19 E $\frac{1}{2}$ NE $\frac{1}{4}$ . Sec 20 NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 658130, 4403253; 658135, 4403423; 658384, 4403479; 658284, 4403413; 658350, 4403507; 658241, 4403334; 658210, 4403336; 658215, 4403301; 658179, 4403308; 658329, 4403467; 658163, 4403315; 658185, 4403325; 658181, 4403341; 658218, 4403361; 658215, 4403391; 658249, 4403403; 658240, 4403453; 658179, 4403400; 658081, 4403326; 658023, 4403315; 658345, 4403546; 658941, 4403487; 658201, 4403443; 658765, 4403434; 659025, 4403481; 658976, 4403618; 658936, 4403617; 658870, 4403539; 658892, 4403510; 658239, 4403380; 658946, 4403466; 657984, 4403339; 658855, 4403468; 658846, 4403450; 658927, 4403460; 658755, 4403378; 658345, 4403573; 658739, 4403442; 658736, 4403489; 658731, 4403494; 658616, 4403592; 658617, 4403609; 658535, 4403607; 658497, 4403578; 658462, 4403571; 658426, 4403604;

658366, 4403603; 658820, 4403452;  
658835, 4403169; 658570, 4403090;  
658594, 4403083; 658663, 4403136;  
658662, 4403176; 658692, 4403186;  
658702, 4403213; 658712, 4403239;  
658712, 4403213; 658712, 4403205;  
658718, 4403165; 658568, 4403124;  
658762, 4403181; 658956, 4403226;  
658863, 4403198; 658889, 4403181;  
658946, 4403219; 658960, 4403247;  
659043, 4403384; 659083, 4403410;  
659078, 4403434; 659025, 4403481;  
657933, 4403319; 658249, 4403450;  
658737, 4403172; 658094, 4403122;  
657935, 4403202; 657938, 4403070;  
659045, 4403341; 658513, 4403113;  
657959, 4403056; 658097, 4403168;  
658051, 4403073; 658059, 4403034;  
658093, 4403020; 658256, 4403031;  
658261, 4403118; 658487, 4403144;  
658520, 4403211; 657998, 4403059;  
658279, 4403055; 658527, 4403174;  
658520, 4403209; 658498, 4403134;  
658459, 4403129; 658446, 4403158;  
658435, 4403107; 658360, 4403035;  
658338, 4403040; 658519, 4403209.

(xvi) Sub-Unit C16: Uintah County, Utah; within T12S R25E Sec 4 NW $\frac{1}{4}$ , W $\frac{1}{2}$ SW $\frac{1}{4}$ , Sec 5 SE $\frac{1}{4}$ , E $\frac{1}{2}$ SW $\frac{1}{4}$ , S $\frac{1}{2}$ NE $\frac{1}{4}$ , Sec 8 N $\frac{1}{2}$ NE $\frac{1}{4}$ , NE $\frac{1}{4}$ NW $\frac{1}{4}$ , Sec 9 NW $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):

659132, 4406626; 659067, 4406612;  
658881, 4406974; 659068, 4406563;  
658991, 4406595; 658931, 4406614;  
658920, 4406637; 658944, 4406706;  
658843, 4406816; 658848, 4406835;  
658876, 4406888; 658931, 4407006;  
658919, 4407051; 659041, 4406537;  
659955, 4406938; 658991, 4407145;  
658996, 4407239; 658854, 4406859;  
659978, 4406831; 659857, 4408063;  
658997, 4407254; 660263, 4408155;  
659863, 4406856; 659763, 4406776;  
659869, 4406880; 659926, 4406995;  
659978, 4406859; 659978, 4406920;  
659069, 4406522; 659872, 4406763;  
659758, 4406689; 659686, 4406607;  
659560, 4406577; 659473, 4406513;  
659457, 4406501; 659153, 4406479;  
659964, 4406981; 660025, 4408162;  
659847, 4408042; 659687, 4407993;  
659699, 4408029; 659750, 4408056;  
659850, 4408042; 659879, 4408128;  
659933, 4408090; 659728, 4407879;  
659978, 4408112; 659644, 4407823;  
660064, 4408154; 660066, 4408153;  
660070, 4408153; 660060, 4408181;  
660105, 4408215; 660248, 4408161;  
659855, 4406820; 659966, 4408099;  
659439, 4407638; 659057, 4407299;  
659094, 4407403; 659128, 4407431;  
659123, 4407542; 659207, 4407646;  
659288, 4407745; 659371, 4407750;  
659725, 4407958; 659366, 4407649;  
659054, 4407297; 659452, 4407651;  
659452, 4407651; 659461, 4407660;

659539, 4407681; 659612, 4407753;  
659548, 4407828; 659610, 4407867;  
659366, 4407649; 659923, 4407543;  
659592, 4407360; 660006, 4407709;  
660091, 4407723; 660154, 4407678;  
660147, 4407667; 660105, 4407609;  
660029, 4407612; 660111, 4407777;  
659990, 4407534; 660135, 4407806;  
659879, 4407603; 659855, 4407610;  
659856, 4407564; 659857, 4407517;  
659821, 4407440; 659523, 4407413;  
659595, 4407393; 660023, 4407556;  
660133, 4407970; 659868, 4406878;  
659791, 4406855; 660263, 4408155;  
660303, 4408079; 660302, 4408074;  
660273, 4407964; 660251, 4407984;  
660005, 4407731; 660154, 4408011;  
659864, 4407532; 660132, 4407969;  
659957, 4407940; 659971, 4407903;  
659947, 4407874; 659980, 4407854;  
659934, 4407809; 660096, 4407835;  
660252, 4407970; 659640, 4406982;  
659465, 4406904; 659470, 4406906;  
659535, 4407030; 659633, 4407334;  
659678, 4407066; 659843, 4407614;  
659562, 4406915; 659424, 4406893;  
659595, 4406915; 659601, 4407071;  
659687, 4406999; 659683, 4406852;  
659683, 4406840; 659689, 4406853;  
659754, 4406983; 659812, 4407073;  
659843, 4407081; 659846, 4407009;  
659572, 4406896; 659750, 4407214;  
659624, 4407301; 659707, 4407310;  
659685, 4407036; 659761, 4407243;  
659442, 4406963; 659712, 4407185;  
659596, 4407194; 659494, 4407149;  
659224, 4406925; 659750, 4407256;  
659460, 4407152; 659409, 4406965;  
659200, 4406857; 659349, 4407000;  
659405, 4407061; 659439, 4407126;  
659418, 4407156; 659351, 4406881.

(xvii) Sub-Unit C17: Uintah County, Utah; within T11S R25E Sec 32 W $\frac{1}{2}$ SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
659067, 4408818; 659376, 4408857;  
659194, 4409090; 659081, 4408730;  
659077, 4408850; 659117, 4408976;  
659137, 4408983; 659238, 4409118;  
659375, 4409080; 659347, 4408991;  
659372, 4408908; 659174, 4408671;  
659039, 4408690; 659323, 4408978;  
659377, 4408836; 659376, 4408857;  
659032, 4408645; 659331, 4408850;  
659287, 4408809; 659255, 4408796;  
659263, 4408768; 659194, 4408678;  
659043, 4408593; 659149, 4408621;  
659094, 4408588; 659070, 4408580;  
659208, 4408718.

(xviii) Sub-Unit C18: Uintah County, Utah; within T11S R25E Sec 33 N $\frac{1}{2}$ SE $\frac{1}{4}$ , S $\frac{1}{2}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
661166, 4409366; 660872, 4409279;  
660863, 4409224; 660882, 4409211;  
660980, 4409254; 661031, 4409259;  
661047, 4409260; 661317, 4409536;

661116, 4409301; 661207, 4409464;  
661290, 4409639; 661098, 4409494;  
661343, 4409630; 661103, 4409284;  
660926, 4409309; 660864, 4409295;  
661343, 4409630; 660860, 4409306;  
660908, 4409410; 661146, 4409635;  
660951, 4409360; 661193, 4409552;  
661029, 4409367; 661057, 4409383;  
661060, 4409421; 661315, 4409648;  
661090, 4409531; 661185, 4409630;  
660932, 4409404.

(xix) Sub-Unit C19: Uintah County, Utah; within T11S R25E Sec 28 SE $\frac{1}{4}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ SE $\frac{1}{4}$ , Sec 33 NE $\frac{1}{4}$ NW $\frac{1}{4}$ , NW $\frac{1}{4}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
660273, 4410118; 660635, 4410355;  
660709, 4410297; 660691, 4410306;  
660677, 4410346; 660691, 4410085;  
660485, 4410373; 660539, 4409989;  
660568, 4409999; 660611, 4410039;  
660642, 4410068; 660642, 4410095;  
660443, 4409945; 660665, 4410096;  
660396, 4409941; 660707, 4410097;  
660783, 4410148; 660805, 4410184;  
660800, 4410242; 660768, 4410260;  
660714, 4410255; 660642, 4410105;  
660241, 4410044; 660637, 4410488;  
660601, 4410491; 660582, 4410492;  
660562, 4410478; 660352, 4410164;  
660493, 4410006; 660238, 4410086;  
660648, 4410438; 660223, 4410038;  
660209, 4410001; 660709, 4410297;  
660209, 4409998; 660230, 4409972;  
660281, 4409953; 660324, 4409982;  
660237, 4410101.

(xx) Sub-Unit C20: Uintah County, Utah; within T11S R25E Sec 20 E $\frac{1}{2}$ SE $\frac{1}{4}$ , SE $\frac{1}{4}$ NE $\frac{1}{4}$ , Sec 21 W $\frac{1}{2}$ SW $\frac{1}{4}$ , Sec 28 NW $\frac{1}{4}$ NW $\frac{1}{4}$ , Sec 29 NE $\frac{1}{4}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N):  
659607, 4412084; 659508, 4411788; 659423, 4412599; 659431, 4412484; 659431, 4412482; 659438, 4412421; 659434, 4412396; 659778, 4411356; 659506, 4412282; 659617, 4412130; 659621, 4412097; 659590, 4412068; 659464, 4412645; 659514, 4411839; 659454, 4412335; 659533, 4411701; 659513, 4411681; 659490, 4411657; 659493, 4411619; 659457, 4411580; 659417, 4411392; 659455, 4411355; 659542, 4411353; 659633, 4411312; 659778, 4411356; 659613, 4411957; 659754, 4411827; 659802, 4411363; 659852, 4411455; 659854, 4411573; 659827, 4411689; 659812, 4411752; 659555, 4412175; 659767, 4411788; 659557, 4412626; 659724, 4411831; 659731, 4411858; 659768, 4411865; 659770, 4411865; 659791, 4411900; 659762, 4412245; 659770, 4411785; 659778, 4411929; 659656, 4412546; 659702, 4412488; 659596, 4412567; 659782, 4412165; 659775, 4412088; 659766, 4411994; 659761,

4411936; 659767, 4411933; 659701, 4412493.

(xxi) Sub-Unit C21: Uintah County, Utah; within T11S R25E Sec 21 NE $\frac{1}{4}$ , NE $\frac{1}{4}$ NW $\frac{1}{4}$ , S $\frac{1}{2}$ NW $\frac{1}{4}$ , N $\frac{1}{2}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$ SW $\frac{1}{4}$ , NW $\frac{1}{4}$ NE $\frac{1}{4}$ , S $\frac{1}{2}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 661070, 4413221; 660959, 4413092; 660958, 4413115; 660958, 4413092; 660991, 4413115; 661013, 4413147; 661049, 4413164; 661127, 4413308; 661204, 4413305; 661122, 4413106; 661061, 4413065; 661025, 4413035; 660931, 4413083; 660979, 4412884; 661050, 4413038; 660131, 4412468; 660476, 4412303; 660423, 4412263; 660391, 4412146; 660367, 4412104; 660366, 4412104; 660365, 4412104; 660284, 4412124; 660157, 4412731; 660162, 4412382; 660607, 4412359; 660149, 4412494; 660156, 4412499; 660160, 4412502; 660243, 4412559; 660160, 4412524; 660122, 4412508; 660104, 4412578; 660929, 4412788; 660245, 4412156; 660802, 4412697; 661025, 4413035; 660999, 4412926; 660976, 4412921; 660976, 4412919; 660961, 4412849; 660844, 4412738; 660805, 4412809; 660796, 4412788; 660514, 4412352; 660821, 4412720; 660565, 4412356; 660757, 4412690; 660802, 4412604; 660688, 4412512; 660677, 4412504; 660686, 4412467; 660618, 4412432; 660625, 4412392; 660170, 4412764; 660822, 4412754; 660725, 4412913; 660107, 4412611; 660900, 4413255; 660840, 4413195; 660731, 4413150; 660784, 4413112; 660788, 4413061; 660719, 4412972; 660784, 4413246; 660724, 4412915; 660762, 4413254; 660735, 4412873; 660775, 4412911; 660776, 4412914; 660791, 4412961; 660825, 4412973; 660852, 4412944; 660873, 4412949; 660880, 4413009; 660736, 4412936; 660449, 4413079; 660244, 4412850; 660256, 4412902; 660272, 4412972; 660295, 4413003; 660289, 4413057; 660314, 4413078; 660315, 4413137; 660873, 4413297; 660448, 4413116; 660937, 4413042; 660399, 4413066; 660457, 4413008; 660554, 4413102; 660584, 4413130; 660583, 4413177; 660619, 4413230; 660670, 4413246; 660684, 4413283; 660733, 4413295; 660389, 4413149.

(xxii) Sub-Unit C22: Uintah County, Utah; within T11S R25E Sec 21 N $\frac{1}{2}$ SE $\frac{1}{4}$ , SW $\frac{1}{4}$ SE $\frac{1}{4}$ , E $\frac{1}{2}$ SW $\frac{1}{4}$ , S $\frac{1}{2}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 660812, 4411796; 660835, 4411808; 660711, 4412502; 661094, 4412523; 661019, 4412347; 660968, 4412289; 660907, 4412217; 660904, 4412146; 660877, 4412118; 660870, 4412110; 660830, 4411976; 660268, 4411941;

660836, 4411900; 661107, 4412836; 660651, 4411821; 660573, 4411818; 660573, 4411818; 660606, 4411845; 660488, 4411809; 660481, 4411834; 660448, 4411798; 661144, 4412639; 660308, 4411830; 660854, 4411923; 660861, 4412611; 661153, 4412697; 661073, 4412704; 661037, 4412669; 661025, 4412677; 661018, 4412723; 661050, 4412718; 661077, 4412732; 660719, 4412513; 660725, 4412522; 661084, 4412785; 660855, 4412551; 661070, 4412814; 660909, 4412676; 660923, 4412750; 660960, 4412793; 660962, 4412799; 661077, 4412732; 660974, 4412833; 661001, 4412845; 661022, 4412903; 661060, 4412904; 660281, 4411890; 660807, 4412526; 660716, 4412438; 660369, 4411789; 660312, 4412041; 660718, 4412459; 660681, 4412444; 660641, 4412424; 660651, 4412364; 660595, 4412333; 660565, 4412338; 660523, 4412345; 660390, 4412105; 660491, 4412310; 660496, 4412291; 660436, 4412267; 660437, 4412232; 660412, 4412198; 660389, 4412105; 660739, 4412468.

(xxiii) Sub-Unit C23: Uintah County, Utah; within T11S R25E Sec 21 E $\frac{1}{2}$ NE $\frac{1}{4}$ , Sec 22 NW $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 661054, 4412905; 661043, 4412921; 661024, 4412946; 661215, 4412861; 661073, 4413011; 661205, 4412942; 661055, 4413022; 661038, 4412997; 661111, 4412899; 661184, 4412924; 661200, 4412875; 661196, 4412926; 661196, 4412924; 661061, 4413042; 661306, 4412927; 661163, 4412905; 661166, 4413184; 661362, 4413075; 661256, 4412864; 661362, 4413075; 661398, 4413173; 661400, 4413225; 661371, 4413254; 661291, 4413249; 661297, 4412902; 661083, 4413057; 661145, 4413152; 661172, 4413116; 661145, 4413108; 661141, 4413081; 661115, 4413058; 661095, 4413049; 661359, 4413253.

(xxiv) Sub-Unit C24: Uintah County, Utah; within T11S R25E Sec 26 NW $\frac{1}{4}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 663327, 4411013; 663256, 4410731; 663291, 4410750; 663351, 4410731; 663405, 4410756; 663410, 4410762; 663406, 4410961; 663405, 4411028; 663230, 4411192; 663341, 4411030; 663080, 4410749; 663332, 4410992; 663294, 4411030; 663335, 4411063; 663347, 4411088; 663332, 4411208; 663267, 4411222; 663243, 4411190; 663230, 4411192; 663401, 4411034; 663157, 4410991; 663208, 4411290; 663096, 4411347; 663074, 4411342; 663062, 4411317; 663066, 4411214; 663080, 4411180; 663121, 4411140; 663135, 4410752; 663154, 4411013;

663113, 4410743; 663103, 4411006; 663052, 4411005; 663038, 4410991; 663045, 4410953; 663053, 4410908; 663044, 4410878; 663079, 4410784; 663199, 4411270; 663124, 4411044.

(xxv) Sub-Unit C25: Uintah County, Utah; within T11S R25E Sec 26 SW $\frac{1}{4}$ SW $\frac{1}{4}$ , Sec 35 NW $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 663260, 4409916; 663243, 4409901; 663340, 4410442; 663418, 4410347; 663420, 4410247; 663396, 4410218; 663376, 4410156; 663353, 4410086; 663326, 4410069; 663194, 4409901; 663291, 4409960; 663340, 4410442; 663164, 4409941; 663210, 4410127; 663212, 4410153; 663218, 4410221; 663214, 4410300; 663173, 4410380; 663234, 4410429; 663306, 4410418.

(xxvi) Sub-Unit C26: Uintah County, Utah; within T11S R25E Sec 26 S $\frac{1}{2}$ SE $\frac{1}{4}$ , Sec 35 N $\frac{1}{2}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 664196, 4410269; 664253, 4409972; 664222, 4410356; 664470, 4410340; 664362, 4410427; 664332, 4410523; 664276, 4410521; 664241, 4410481; 664209, 4410265; 664128, 4410243; 664122, 4410188; 664125, 4410173; 664138, 4410103; 664229, 4410015; 664293, 4409973; 664480, 4409972; 664470, 4410340; 664469, 4410234; 664504, 4410183; 664504, 4410182; 664194, 4410079; 664421, 4410135; 664329, 4410001; 664474, 4409872; 664447, 4409828; 664413, 4409821; 664364, 4409856; 664335, 4409916; 664491, 4410158.

(xxvii) Sub-Unit C27: Uintah County, Utah; within T11S R25E Sec 25 S $\frac{1}{2}$ SE $\frac{1}{4}$ , Sec 36 N $\frac{1}{2}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 665993, 4410239; 665856, 4410224; 665881, 4410222; 665991, 4410218; 665828, 4410470; 665542, 4410207; 665539, 4410279; 665555, 4410371; 665661, 4410394; 665620, 4410421; 665961, 4410278; 665820, 4410476; 665637, 4410088; 665848, 4410456; 665873, 4410411; 665857, 4410390; 665873, 4410330; 665864, 4410303; 665928, 4410277; 665623, 4410435; 665838, 4409882; 665983, 4410127; 666006, 4410066; 665934, 4409961; 665937, 4409923; 665902, 4409903; 665925, 4409821; 665543, 4410196; 665840, 4409880; 665613, 4410149; 665788, 4409870; 665760, 4409889; 665751, 4409970; 665718, 4410027; 665856, 4410224; 665883, 4409819.

(xxviii) Sub-Unit C28: Uintah County, Utah; within T11S R25E Sec 23 SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 664299, 4412318; 664009, 4412333; 664185, 4411930; 664243,

4412180; 664193, 4411942; 664237, 4412016; 664252, 4412101; 664241, 4412194; 664289, 4412360; 664206, 4412420; 664174, 4411882; 664109, 4412364; 664117, 4412431; 664036, 4412196; 664138, 4411844; 664024, 4412176; 663922, 4412001; 663933, 4411921; 664032, 4411875; 664060, 4411824; 664111, 4411824; 664184, 4412423; 664050, 4412336; 664138, 4411844.

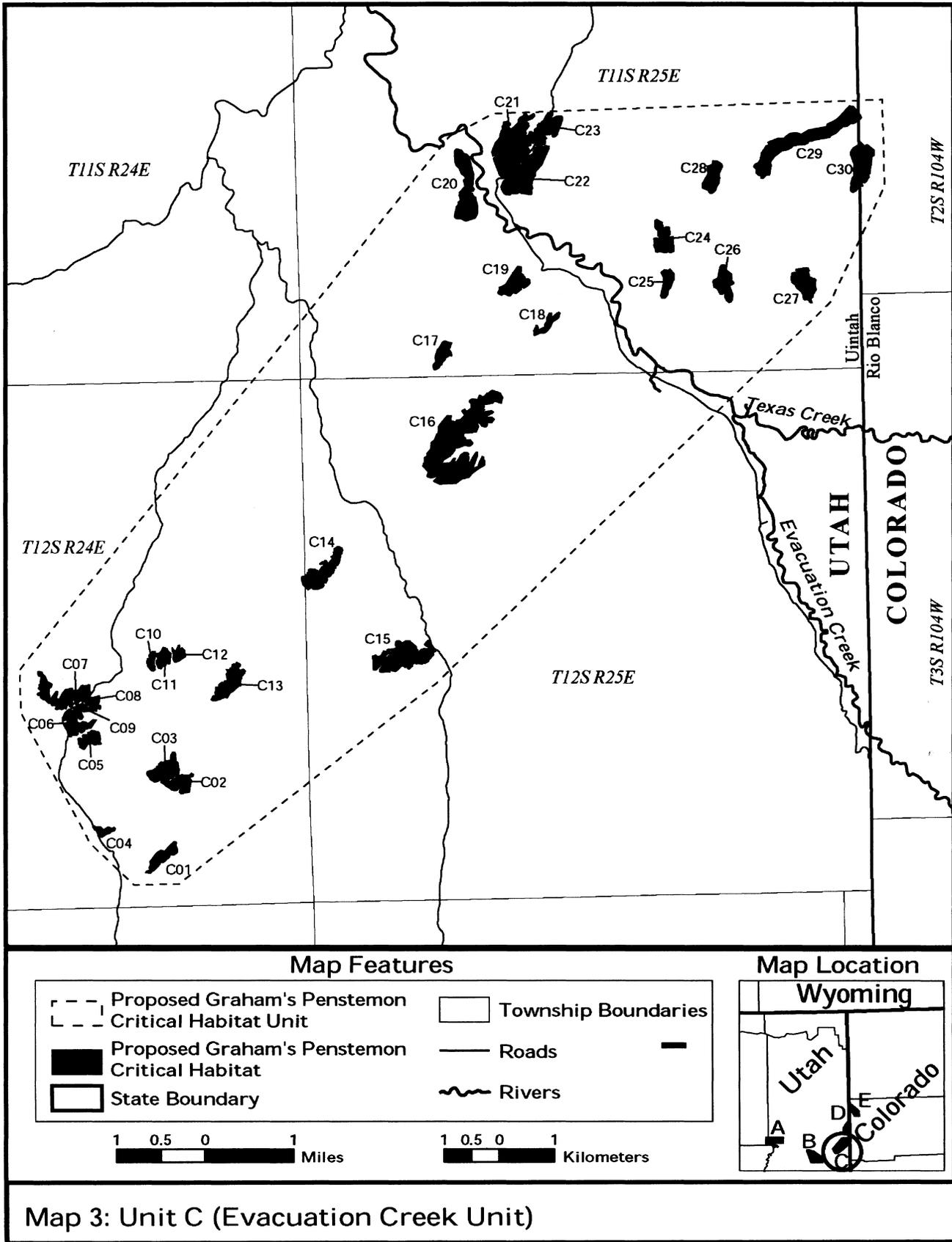
(xxix) Sub-Unit C29: Uintah County, Utah and Rio Blanco County, Colorado; within T11S R25E Sec 24 Lots 1, 2, 3, 5, 6, 7, SW $\frac{1}{4}$ , SE $\frac{1}{4}$ NW $\frac{1}{4}$ , T2S R104W Sec 22 Lot 4, T2S R104W Sec 27 Lot 1. Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 665092, 4412149; 665441, 4412878; 664905, 4412268; 664904, 4412195; 664907, 4412193; 664960, 4412148; 664990, 4412156; 664995, 4412105; 665791, 4412723; 665033, 4412093; 664985, 4412451; 665156, 4412156; 665163, 4412198; 665184, 4412323; 665180, 4412406; 665245, 4412500; 665378, 4412605; 665381, 4412608; 665389, 4412609; 664942,

4412389; 664996, 4412100; 665385, 4412843; 666356, 4412936; 666267, 4412888; 666244, 4412853; 665530, 4412939; 666193, 4412844; 665985, 4412811; 665899, 4412782; 665868, 4412789; 665847, 4412746; 664861, 4412321; 665588, 4412703; 664892, 4412369; 665526, 4412643; 665288, 4412841; 665125, 4412774; 665116, 4412757; 665139, 4412717; 665092, 4412710; 665017, 4412598; 664995, 4412565; 664989, 4412494; 665412, 4412844; 666819, 4413251; 666356, 4412936; 666463, 4413033; 666478, 4413047; 666556, 4413060; 666592, 4413085; 666625, 4413107; 666701, 4413114; 666769, 4413170; 665442, 4412615; 666824, 4413215; 666766, 4413317; 666672, 4413435; 665856, 4413001; 665784, 4412720; 665637, 4412948; 666802, 4413197; 665787, 4412955; 666596, 4413438; 665969, 4413022; 666189, 4413063; 666193, 4413064; 666194, 4413109; 666300, 4413150; 666401, 4413220; 666585, 4413426; 665737, 4412922.

(xxx) Sub-Unit C30: Uintah County, Utah and Rio Blanco County, Colorado;

within T11S R25E Sec 24 Lots 8, 9, 16, T2S E104W Sec 27 Lots 1, 2, 3. Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 666959, 4412173; 666823, 4412767; 666879, 4412712; 666927, 4412731; 667057, 4412624; 667054, 4412517; 667023, 4412507; 666645, 4412633; 666661, 4412128; 666683, 4412141; 666675, 4412229; 666671, 4412264; 666693, 4412345; 667000, 4412347; 666621, 4412601; 666638, 4411845; 666672, 4412667; 666770, 4412721; 666777, 4412729; 666807, 4412767; 666815, 4412776; 666823, 4412767; 666619, 4412554; 666795, 4411954; 666962, 4412124; 666938, 4412088; 666929, 4412061; 666885, 4412025; 666834, 4412023; 666631, 4412041; 666795, 4411954; 666616, 4411883; 666793, 4411954; 666791, 4411955; 666790, 4411956; 666715, 4411860; 666670, 4411844; 666979, 4412197; 666847, 4411955.

(xxxi) **Note:** Map of Unit C of critical habitat for *Penstemon grahamii* (Map 3) follows:



(9) Unit D—White River Unit, Uintah County, Utah, from USGS Weaver Ridge

(1987) 7.5' quadrangle maps, 6PM and SLBM:

(i) Sub-Unit D01: Uintah County, Utah; within T10S R25E Sec 28 NE¼.

Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 662328, 4420877; 662351, 4420878; 662131, 4421306; 662235, 4421257; 662241, 4421259; 662300, 4421273; 662317, 4421261; 662403, 4421123; 662389, 4421039; 662394, 4421000; 662403, 4420934; 662435, 4420850; 662341, 4420781; 662391, 4420796; 662131, 4421306; 662348, 4420814; 662250, 4420841; 662228, 4420855; 662175, 4420958; 662166, 4420995; 662158, 4421029; 662065, 4421102; 662053, 4421235; 662073, 4421287; 662425, 4420800.

(ii) Sub-Unit D02: Uintah County, Utah; within T10S R25E Sec 21 NE $\frac{1}{4}$ NE $\frac{1}{4}$ , Sec 22 NW $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 662427, 4422957; 662614, 4422749; 662614, 4422749; 662510, 4422697; 662418, 4422811; 662413, 4422860; 662445, 4422994; 662540, 4423006; 662580, 4422991; 662610, 4422986; 662848, 4422945; 662759, 4422832; 662695, 4422809; 662678, 4422781; 662470, 4423005.

(iii) Sub-Unit D03: Uintah County, Utah; within T10S R25E Sec 22 NE $\frac{1}{4}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 664152, 4422914; 663817, 4422814; 664104, 4423031; 664072, 4423031; 663997, 4422933; 663932, 4422981; 663894, 4422951; 664131, 4423014; 663816, 4422883; 664131, 4423014; 663849, 4422780; 663895, 4422767; 664033, 4422772; 664083, 4422820; 664120, 4422815; 664134, 4422827; 663866, 4422947.

(iv) Sub-Unit D04: Uintah County, Utah; within T10S R25E Sec 16 NE $\frac{1}{4}$ SW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 661616, 4423571; 661524, 4423616; 661604, 4423468; 661505, 4423382; 661575, 4423403; 661619, 4423617;

661493, 4423571; 661499, 4423552; 661471, 4423491; 661488, 4423382; 661586, 4423498; 661505, 4423382; 661400, 4423485; 661431, 4423387; 661411, 4423434; 661398, 4423444; 661397, 4423479.

(v) Sub-Unit D05: Uintah County, Utah; within T10S R25E Sec 10 NE $\frac{1}{4}$ SE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 663865, 4425206; 663990, 4425084; 664098, 4425142; 664012, 4425182; 663954, 4425186; 663945, 4425243; 663912, 4425261; 663875, 4425250; 664108, 4425093; 663824, 4425196; 663813, 4425175; 663815, 4425144; 663880, 4425071; 663955, 4425060; 664077, 4425083; 664108, 4425093; 663936, 4425059.

(vi) Sub-Unit D06: Uintah County, Utah; within T10S R25E Sec 11 NE $\frac{1}{4}$ SW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 664699, 4425273; 664640, 4425254; 664799, 4425432; 664798, 4425406; 664771, 4425390; 664772, 4425355; 664664, 4425473; 664731, 4425329; 664799, 4425432; 664707, 4425428; 664650, 4425475; 664644, 4425475; 664605, 4425360; 664618, 4425329; 664610, 4425280; 664619, 4425264; 664759, 4425476.

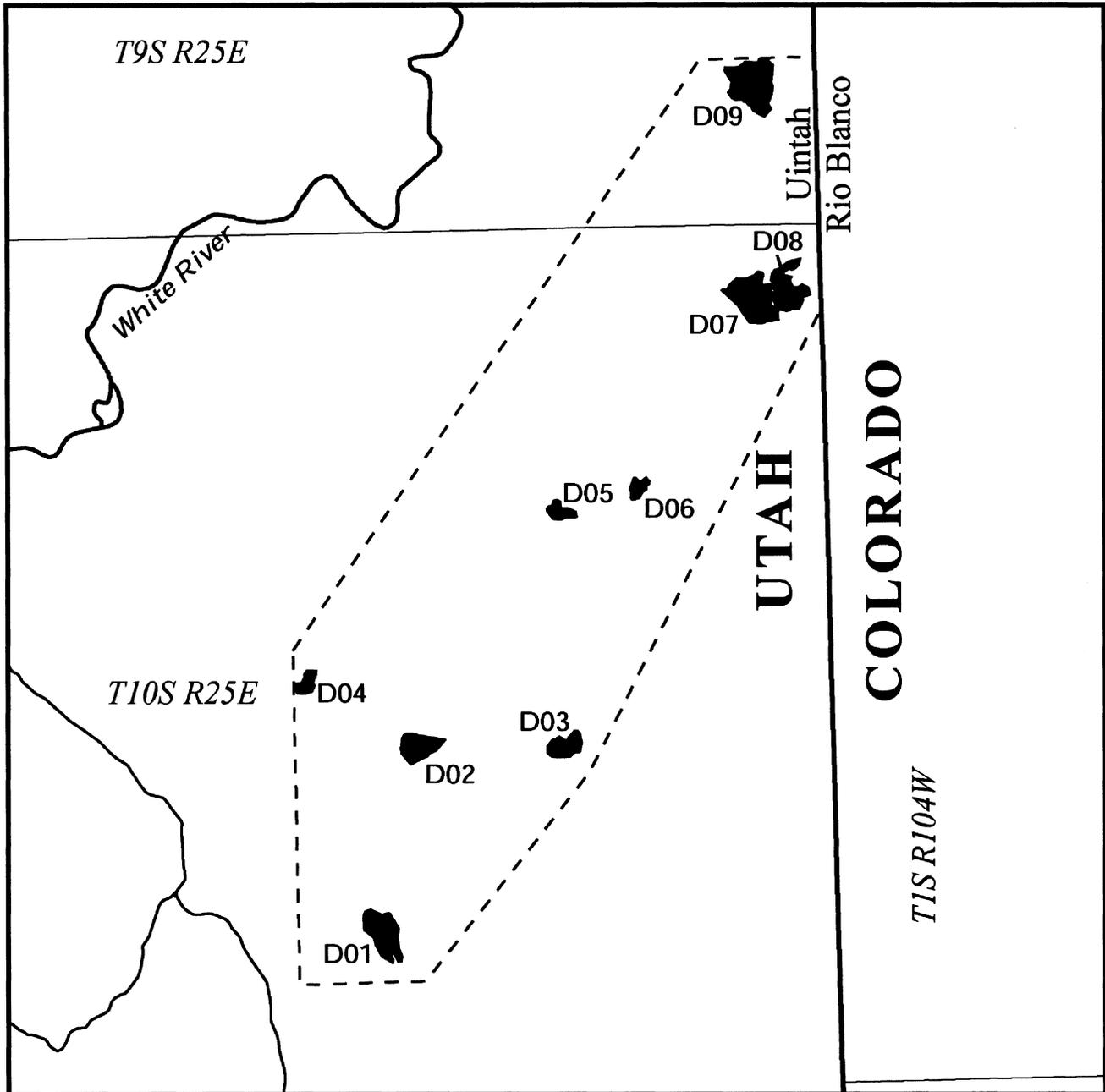
(vii) Sub-Unit D07: Uintah County, Utah; within T10S R25E Sec 1 NW $\frac{1}{4}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ NW $\frac{1}{4}$ , Sec 2 NE $\frac{1}{4}$ SE $\frac{1}{4}$ , SE $\frac{1}{4}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 665534, 4427283; 665875, 4427453; 665679, 4427066; 665634, 4427132; 665483, 4427278; 665888, 4427424; 665829, 4427462; 665799, 4427428; 665732, 4427401; 665716, 4427395; 665739, 4426976; 665561, 4427334; 666021, 4427082; 665628, 4427396; 665747, 4426963; 665872, 4426955; 665920, 4426975; 666024, 4427079; 665497, 4427290; 665951, 4427145;

665978, 4427228; 665955, 4427280; 665976, 4427298; 665956, 4427345; 665876, 4427331; 665869, 4427359; 665888, 4427424; 666033, 4426983.

(viii) Sub-Unit D08: Uintah County, Utah; within T10S R25E Sec 1, Lots 1, 2, 3, NW $\frac{1}{4}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 666139, 4427079; 666167, 4427314; 666222, 4427094; 666261, 4427184; 666254, 4427208; 666332, 4427235; 666313, 4427311; 666183, 4427484; 666215, 4427313; 666023, 4427087; 666138, 4427377; 666158, 4427410; 666134, 4427414; 666075, 4427426; 666130, 4427484; 666154, 4427473; 666252, 4427342; 665992, 4427479; 666183, 4427484; 666196, 4427497; 666223, 4427524; 666240, 4427592; 666131, 4427564; 666130, 4427564; 666139, 4427089; 666019, 4427484; 666107, 4427074; 665958, 4427437; 666048, 4427084; 665953, 4427374; 665985, 4427328; 665984, 4427168; 666133, 4427482; 666031, 4427492; 666080, 4427451.

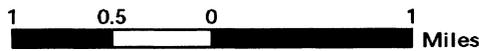
(ix) Sub-Unit D09: Uintah County, Utah; within T9S R25E Sec 25 NE $\frac{1}{4}$ NE $\frac{1}{4}$ , Sec 36 W $\frac{1}{2}$ NW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 665683, 4429459; 665907, 4429518; 665952, 4429118; 665987, 4429447; 665967, 4429284; 665982, 4429243; 665975, 4429173; 665907, 4429518; 665852, 4429516; 665717, 4429488; 665653, 4429434; 665523, 4429429; 665518, 4429390; 665696, 4429091; 665766, 4429054; 665745, 4429057; 665897, 4428947; 665834, 4429476; 665965, 4429028; 665584, 4429289; 665790, 4429006; 665935, 4429079; 665718, 4429091; 665696, 4429113; 665623, 4429111; 665581, 4429134; 665548, 4429191; 665575, 4429218.

(x) **Note:** Map of Unit D of critical habitat for *Penstemon grahamii* (Map 4) follows:

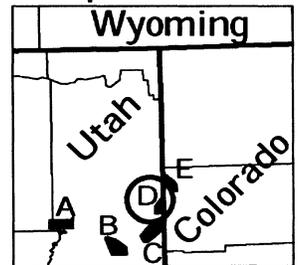


**Map Features**

	Proposed Graham's Penstemon Critical Habitat Unit		Township Boundaries
	Proposed Graham's Penstemon Critical Habitat		Roads
	State Boundary		Rivers



**Map Location**



**Map 4: Unit D (White River Unit)**

(10) Unit E—Raven Ridge Unit, Rio Blanco County, Colorado, from USGS

Dinosaur (1968), Walsh Knolls (1968),

and Banty Point (1962) 7.5' quadrangle maps, 6PM and SLBM.

(i) Sub-Unit E01: Rio Blanco County, Colorado; within T2NR104W Sec 13 W $\frac{1}{2}$ NW $\frac{1}{4}$ , Sec 14 N $\frac{1}{2}$ NE $\frac{1}{4}$ , SE $\frac{1}{4}$ NE $\frac{1}{4}$  (6PM). Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 667795, 4445744; 667905, 4445655; 667735, 4445819; 667705, 4445828; 667623, 4445904; 667506, 4446012; 668118, 4445539; 667934, 4445627; 668439, 4445709; 667681, 4445850; 667987, 4445583; 668043, 4445550; 668074, 4445532; 668101, 4445518; 668146, 4445539; 668183, 4445486; 668212, 4445486; 668334, 4445575; 667623, 4446183; 668274, 4445592; 668389, 4445835; 667564, 4446124; 667608, 4446168; 668388, 4445791; 668337, 4445870; 668239, 4445934; 668153, 4446022; 668034, 4446097; 667867, 4446203; 667815, 4446272; 667801, 4446272; 667631, 4446232; 668439, 4445709.

(ii) Sub-Unit E02: Rio Blanco County, Colorado; within T2N R103W Sec 19 W $\frac{1}{2}$ NW $\frac{1}{4}$ , Sec 24 E $\frac{1}{2}$ NE $\frac{1}{4}$  (6PM). Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 669680, 4444281; 669968, 4444291; 669929, 4444356; 669898, 4444406; 669773, 4444557; 669671, 4444642;

669600, 4444702; 669906, 4444241; 669393, 4444697; 669366, 4444648; 669321, 4444636; 669301, 4444616; 669585, 4444377; 669834, 4444212; 669301, 4444568; 669693, 4444268; 669744, 4444205; 669834, 4444212; 669302, 4444560; 669616, 4444346.

(iii) Sub-Unit E03: Rio Blanco County, Colorado; within T2N R103W Sec 29 NW $\frac{1}{4}$ SE $\frac{1}{4}$  (6PM). Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 672492, 4442163; 672399, 4442031; 672295, 4442017; 672167, 4442034; 672133, 4442125; 672153, 4442164; 672236, 4442240; 672343, 4442291; 672385, 4442291; 672411, 4442278; 672458, 4442173; 672488, 4442132; 672470, 4442088; 672399, 4442031; 672415, 4442234.

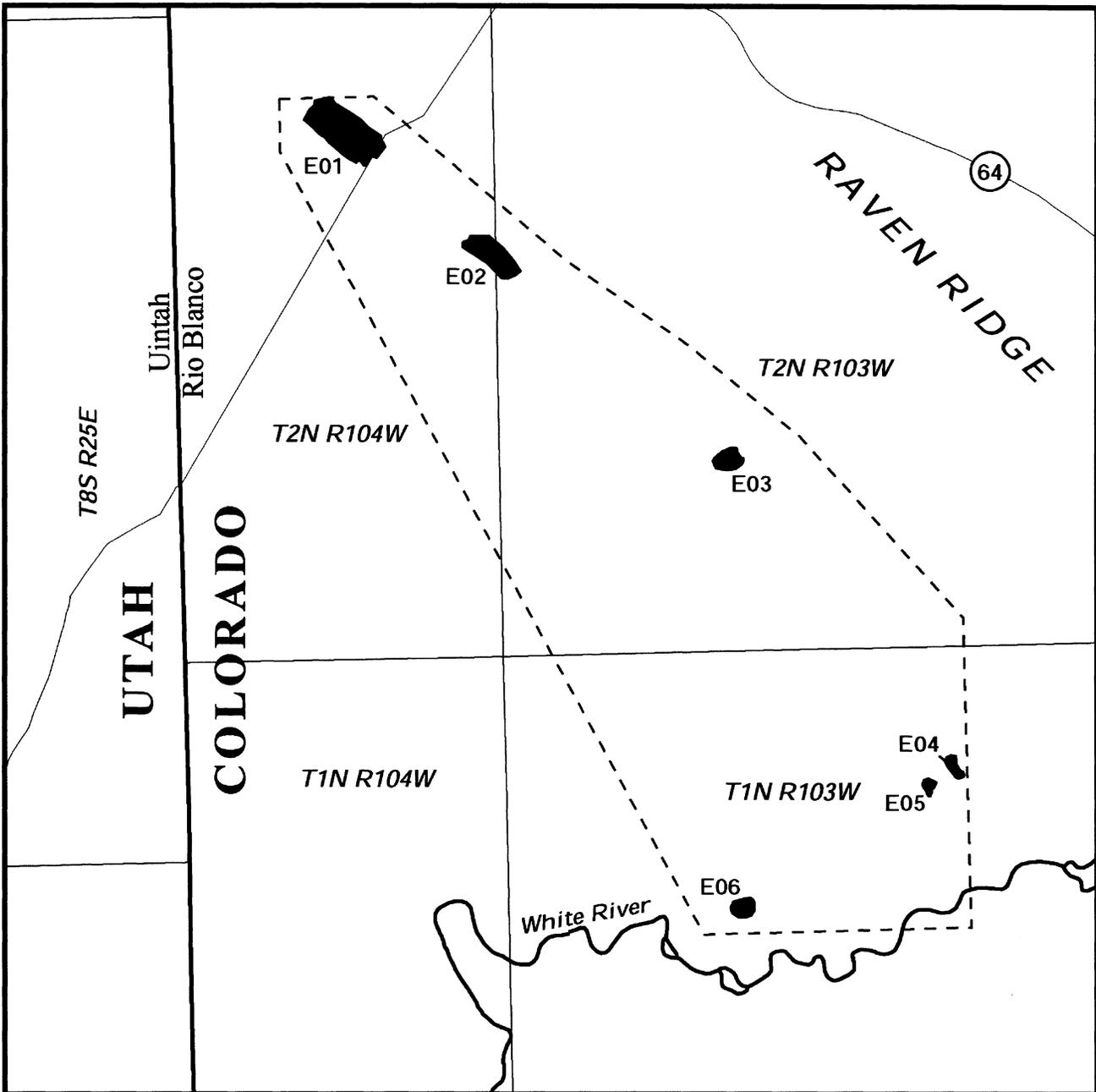
(iv) Sub-Unit E04: Rio Blanco County, Colorado; within T1N R103W Sec 3 SW $\frac{1}{4}$ SW $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 674889, 4438766; 674752, 4438700; 674968, 4438519; 674906, 4438496; 674936, 4438601; 674782, 4438635; 674773, 4438749; 674828, 4438770; 674892, 4438667; 674969, 4438580;

674980, 4438538; 674968, 4438519; 674876, 4438514.

(v) Sub-Unit E05: Rio Blanco County, Colorado; within T1N R103W Sec 3 SW $\frac{1}{4}$ SW $\frac{1}{4}$ , Sec 4 SE $\frac{1}{4}$ SE $\frac{1}{4}$ , Sec 9 NE $\frac{1}{4}$ NE $\frac{1}{4}$ . Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 674619, 4438387; 674619, 4438353; 674592, 4438296; 674573, 4438299; 674556, 4438321; 674537, 4438379; 674528, 4438385; 674519, 4438391; 674500, 4438436; 674517, 4438493; 674571, 4438509; 674618, 4438487; 674636, 4438387; 674619, 4438353; 674672, 4438462.

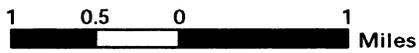
(vi) Sub-Unit E06: Rio Blanco County, Colorado; within T1N R103W Sec 8 SW $\frac{1}{4}$ SE $\frac{1}{4}$  (6PM). Land bounded by the following UTM Zone 12 NAD 83 coordinates (meters E, meters N): 672510, 4436908; 672573, 4436937; 672610, 4436987; 672615, 4437077; 672599, 4437115; 672510, 4436908; 672562, 4437147; 672494, 4437140; 672367, 4437102; 672332, 4437028; 672351, 4436960; 672426, 4436907.

(vii) **Note:** Map of Unit E of critical habitat for *Penstemon grahamii* (Map 5) follows:

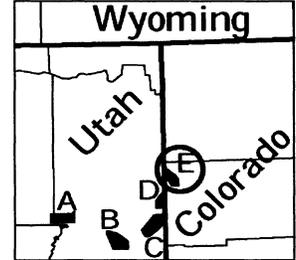


**Map Features**

- |   |                     |
|---|---------------------|
| Proposed Graham's Penstemon Critical Habitat Unit | Township Boundaries |
| Proposed Graham's Penstemon Critical Habitat      | Roads               |
| State Boundary                                    | Rivers              |



**Map Location**



**Map 5: Unit E (Raven Ridge Unit)**

\* \* \* \* \*

Dated: January 9, 2006.

**Paul Hoffman,**

*Acting Assistant Secretary for Fish and  
Wildlife and Parks.*

[FR Doc. 06-363 Filed 1-18-06; 8:45 am]

**BILLING CODE 4310-55-P**